CHAPTER 3
OFFICE AUTOMATION

SHORT AND LONG QUESTIONS

Q.1 Explain office automation system.

Ans: Office Automation System (OAS):

Office Automation refers to modern technology used to create, store, process and communicate information for accomplishing basic tasks performed in offices. The system that facilitates office automation is known as Office Automation System (OAS).

Advantages Office Automation System (OAS):

Office Automation System consists of computer hardware, software and network. The software used for office automation consists of word-processing, spreadsheet, database management, presentation, graphics, electronic mail and video conferencing software. Office automation software allows users to create letters, reports, spreadsheets, graphs, manipulate images and send email to or receive email from users on the network

Office automation software helps in improving productivity and saving money and human efforts.

Microsoft Office:

The most commonly used office automation software is Microsoft Office. It is an office suite of applications. It consists of MS Word, MS Excel, MS Access, MS PowerPoint and MS Outlook. It was first announced by Bill Gates on 1 August 1988. Its latest version is Microsoft Office 2016 released on 22 September, 2015.

Examples of office automation software:

Some other examples of office automation software are Apache Open Office, Libre Office and Neo Office. All of these are based on Open Office office suite. These can be freely downloaded and installed on Windows, Linux and MacOS operating systems.

Q.2 List the advantages of office automation software.

Ans: Advantages of Office Automation Software:

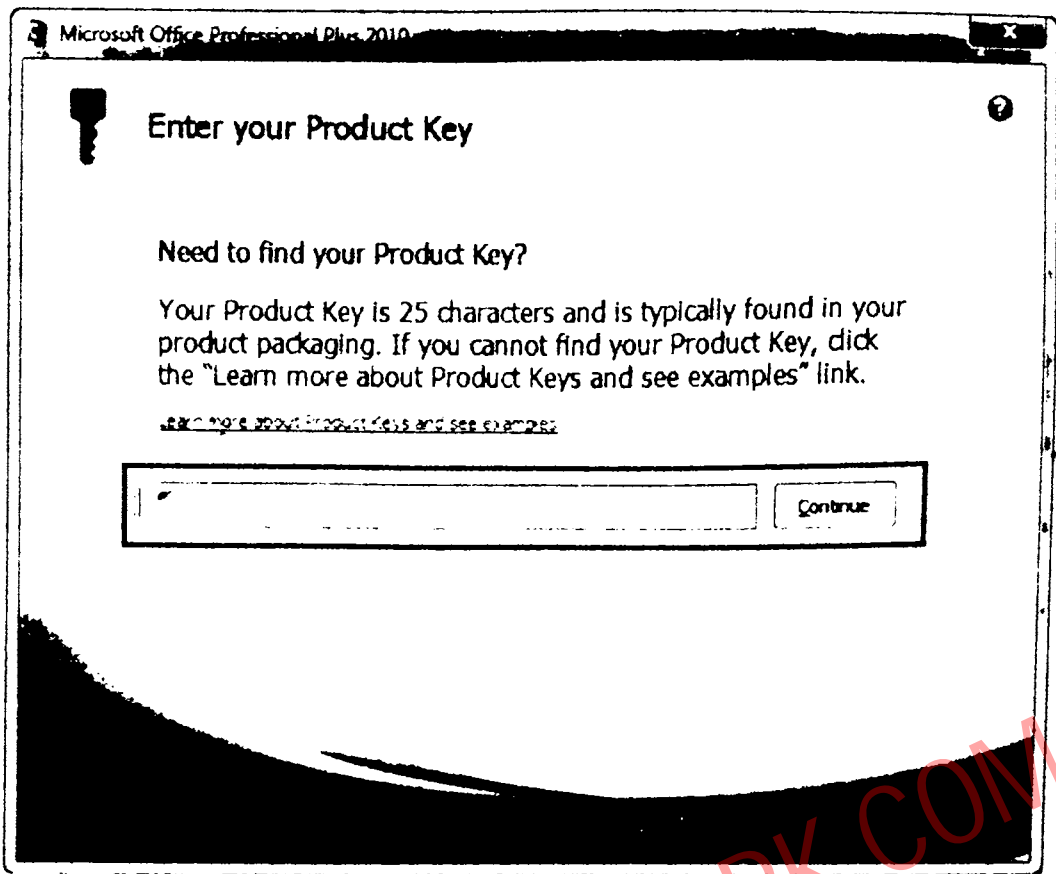
The common office automation software is Microsoft Office. It is productivity software for Windows operating system. It includes word processing, spreadsheet, presentation, database and e-mail communication programs. These programs provide facilities that are commonly required to run an office or business.

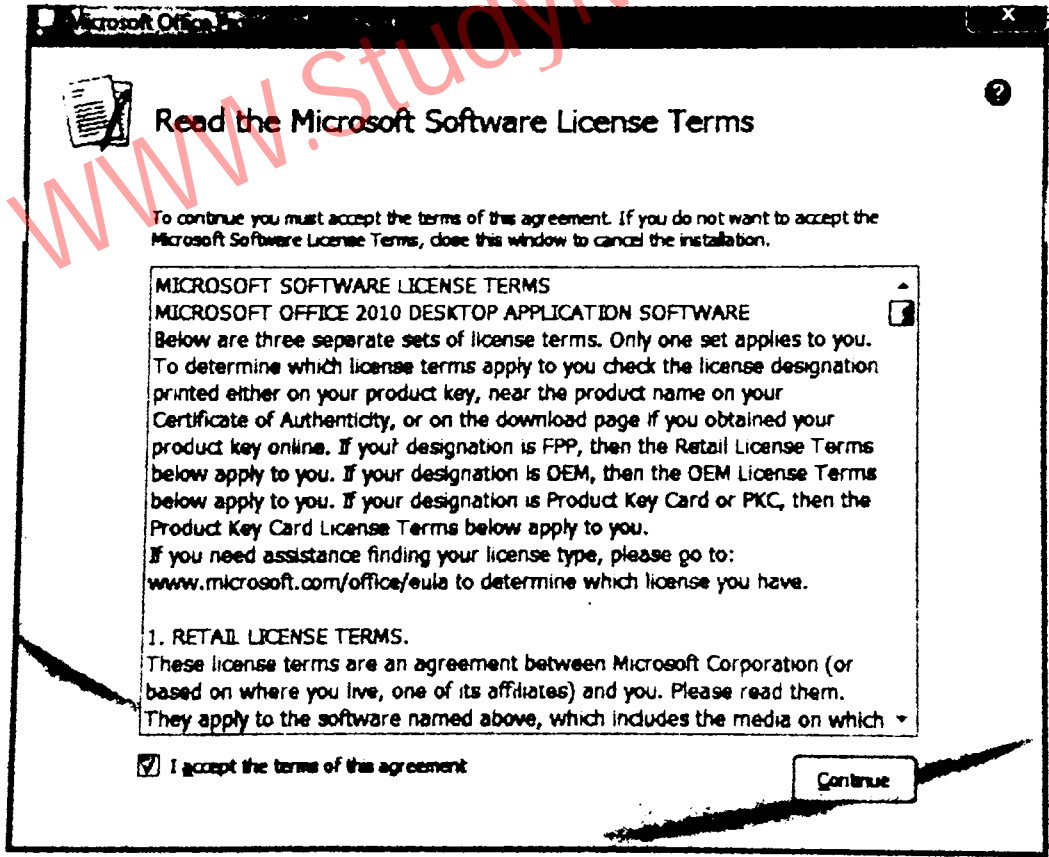
Q.3 Explain the installation of office automation software.

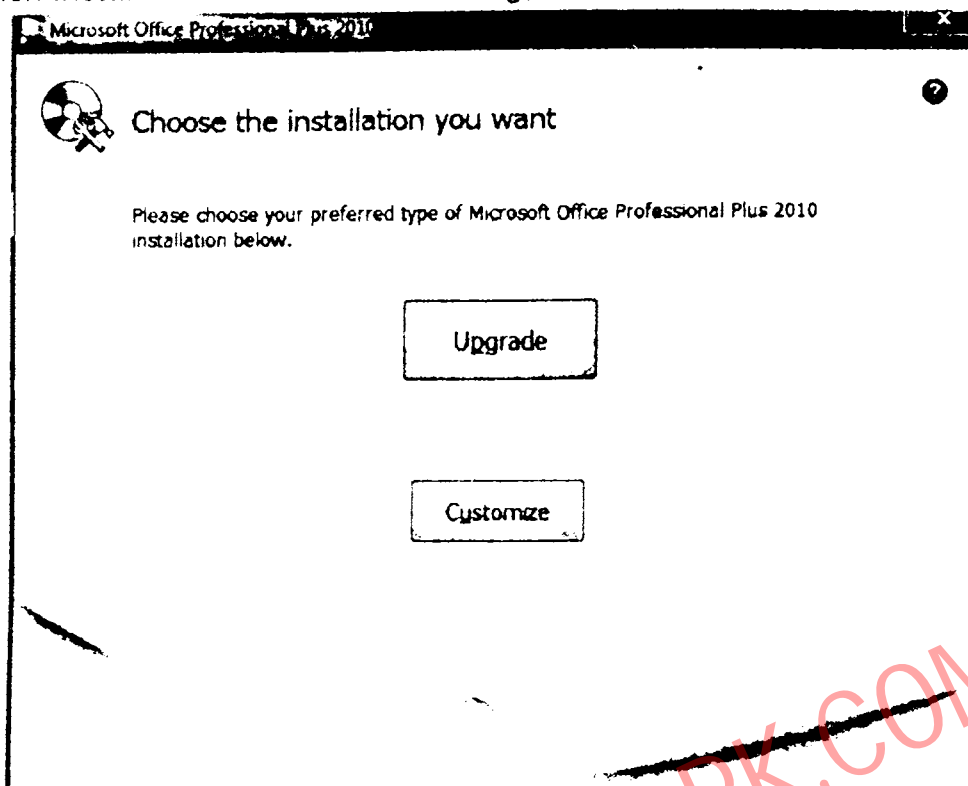
Ans: Installation of Office Automation Software:

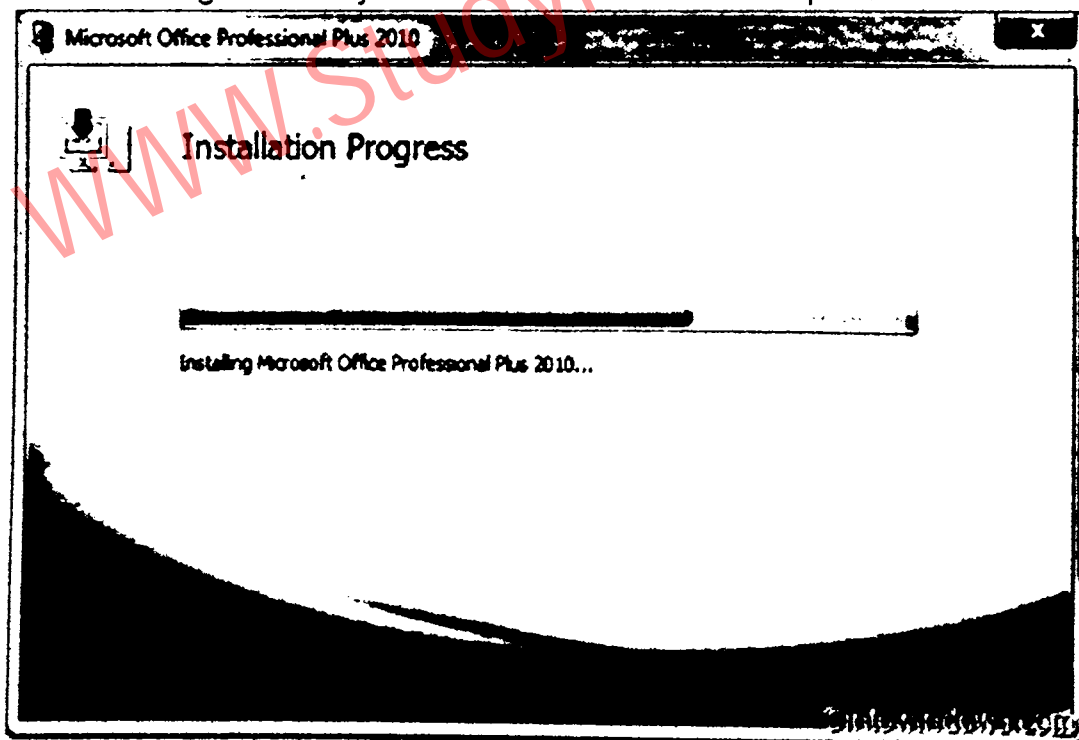
Steps to Install Microsoft Office 2010 Software:

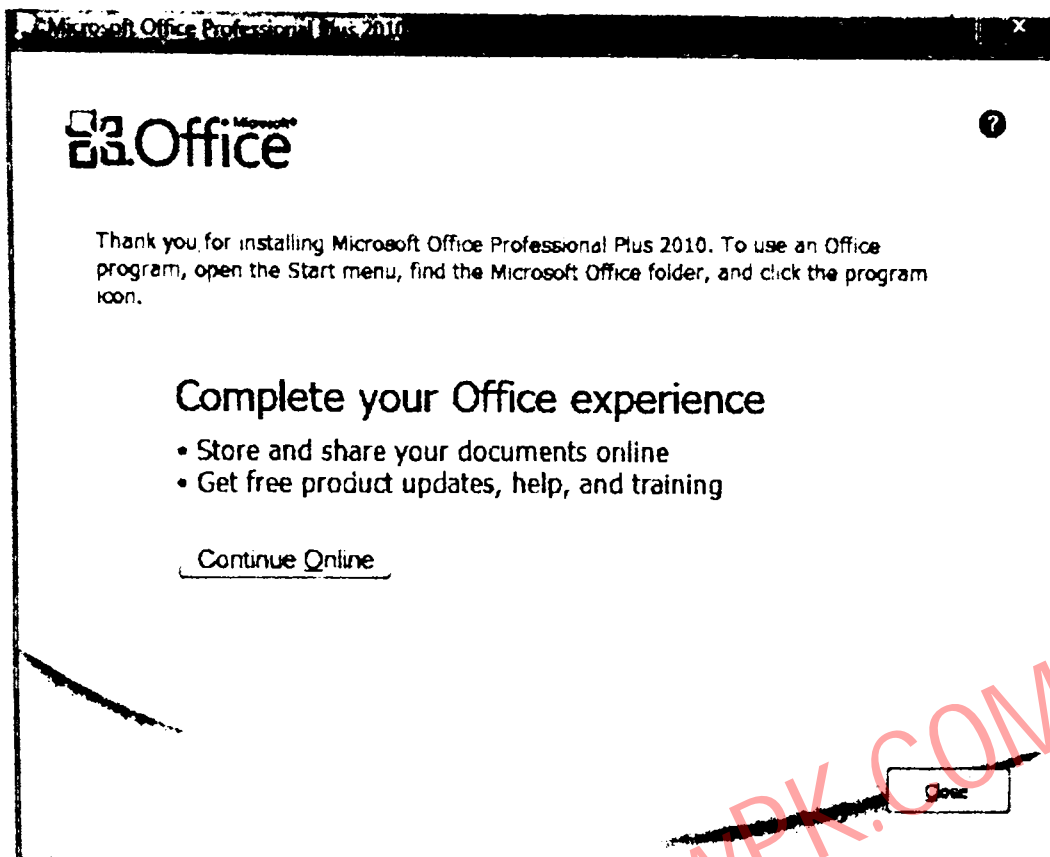
The following are the steps to install Microsoft Office 2010 software.

1. Run the installation program.
2. Enter the Product Key and click Continue button as shown in Fig.

Screen for entering Product Key

3. Read the Microsoft Software License Terms shown in Fig., check the box to accept the terms of agreement and click Continue.

Microsoft Software License Terms

4. Click Install Now button shown in Fig, to start the installation.

Screen to choose preferred type of installation

5. Progress bar indicating how much installation has progressed will appear as shown in Fig. This may take several minutes to complete.

Progress bar indicating installation progress

6. Click the Close button shown in Fig, to exit the installation program.

Screen indicating that installation has completed

Do You Know?

Microsoft Office 2010 cannot be installed on a computer on which Windows XP operating system is installed.

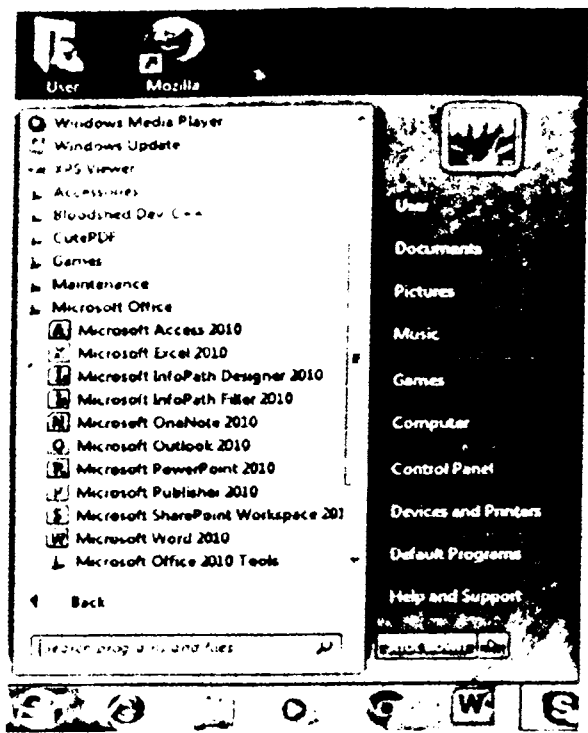
Do You Know?

The first version of Microsoft Word was released in 1983 for DOS and first Windows version was released in 1989.

Q.4 Describe the steps for opening the MS Word program.

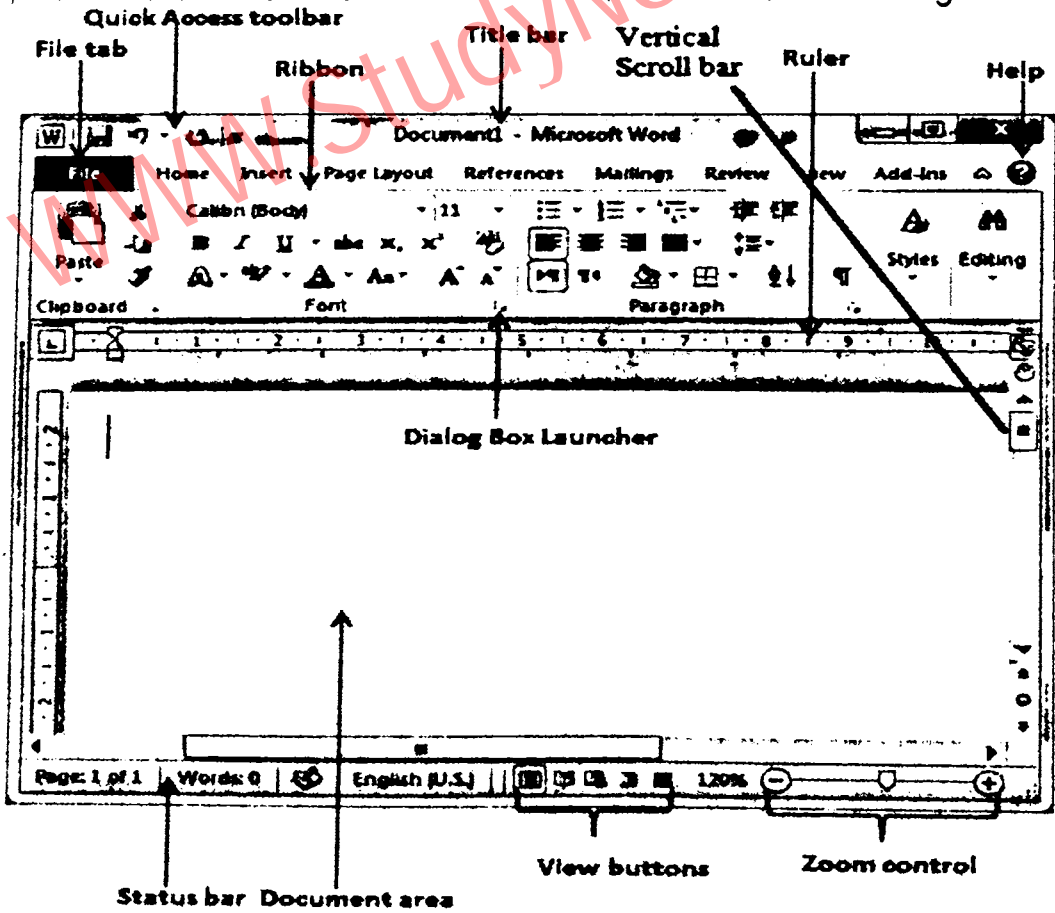
Ans: Opening the MS Word Program:

The following are the steps for opening the MS Word program.

1. Turn on the computer and click **Start** button.
2. Click **All Programs**.
3. Click **Microsoft Office** to display the submenu. The submenu contains all the programs included in **Microsoft Office** software.
4. Click **Microsoft Word 2010** to open the Word program shown in Fig.

Opening Word

Q.5 List the main components of Word window.

Ans: Main components of Word window:

The main components of Word window consist of Quick Access Toolbar, Ribbon, Horizontal/Vertical Scroll bars and Status bar as shown in Fig.

Word Window

Q.6 List the functions of quick access toolbar.

Ans: Quick Access Toolbar:

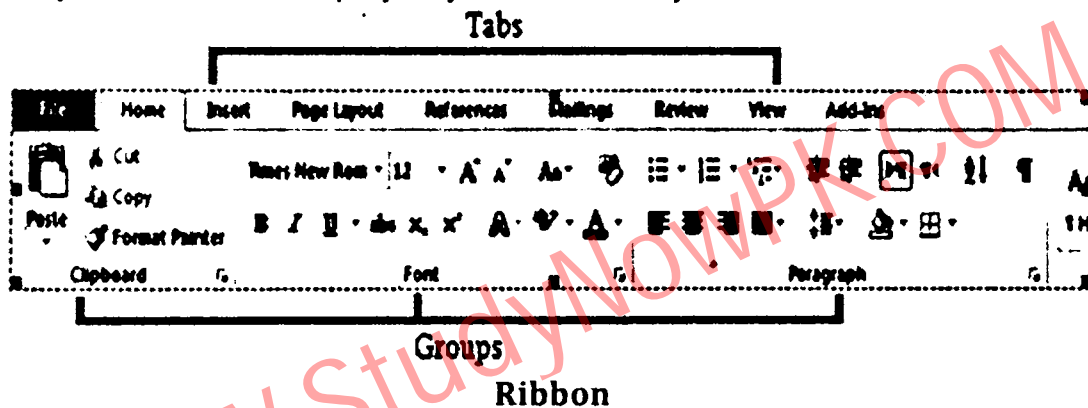
Quick Access Toolbar is located at the top left corner of Word window. It provides easy access to commonly used **Save**, **Undo** and **Redo** commands. If the user clicks the down arrow at the right side, Word will display a list of commands that can be quickly added to or removed from the Quick Access Toolbar.

Q.7 Highlight the functions and nine types of tabs in the ribbon.

Ans: Ribbon:

Ribbon is located below the title bar of the Word window. Ribbon consists of tabs, groups and commands as shown in Fig. It provides access to the commands that are performed while working on a document.

There are nine types of tabs in the ribbon which are File, Home, Insert, Page Layout, References, Mailings, Review, View and Add-Ins. Home tab is the most commonly used tab. To display any of these tabs just click on it.

Ribbon

Q.8 Highlight the functions of horizontal and vertical scroll bars.

Ans: Horizontal and Vertical Scroll Bars:

Vertical scroll bar is located at the right edge of the document window. It is used to scroll down or up the document that is too large to fit in the document window. Horizontal scroll bar appears automatically at the bottom of the document window if a document is too wide to fit in the document window.

Q.9 Highlight the functions status bar.

Ans: Status Bar:

Status bar is located at the bottom of the document window above the Windows taskbar. It presents information about the document such as current page, total number of pages in the document, number of words in the document, etc.

It also provides controls for viewing the document in different layouts. The right edge of status bar presents zoom in and zoom out bar. Zoom in is used to get close-up view of document and zoom out is used to view more of the page at a reduced size.

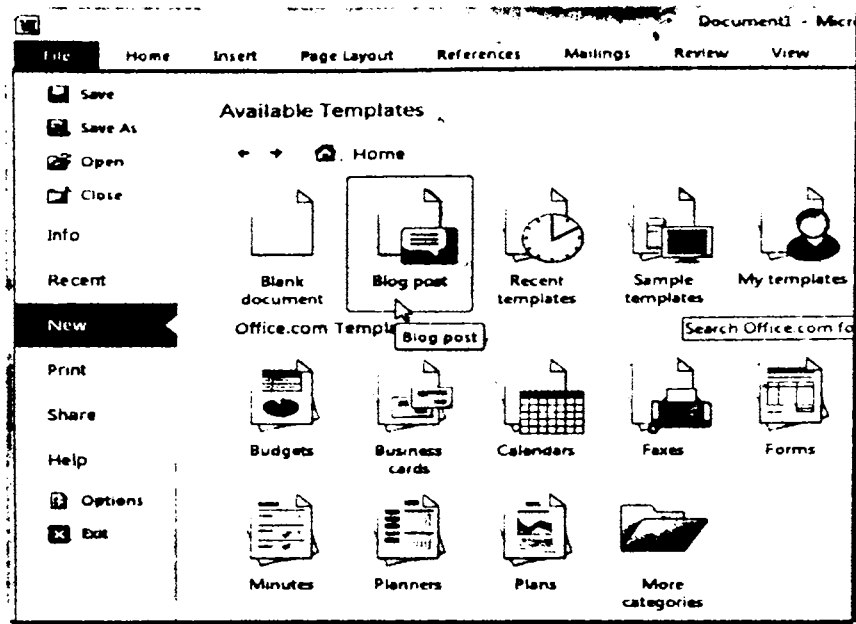
Q.10 Highlight the steps to create a new document.

Ans: Steps to create a new document:

Creating a New Document:

The following are the steps to create a new document.

1. Click the **File** tab.

2. Click **New** in the pull-down menu as shown in Fig.

File tab

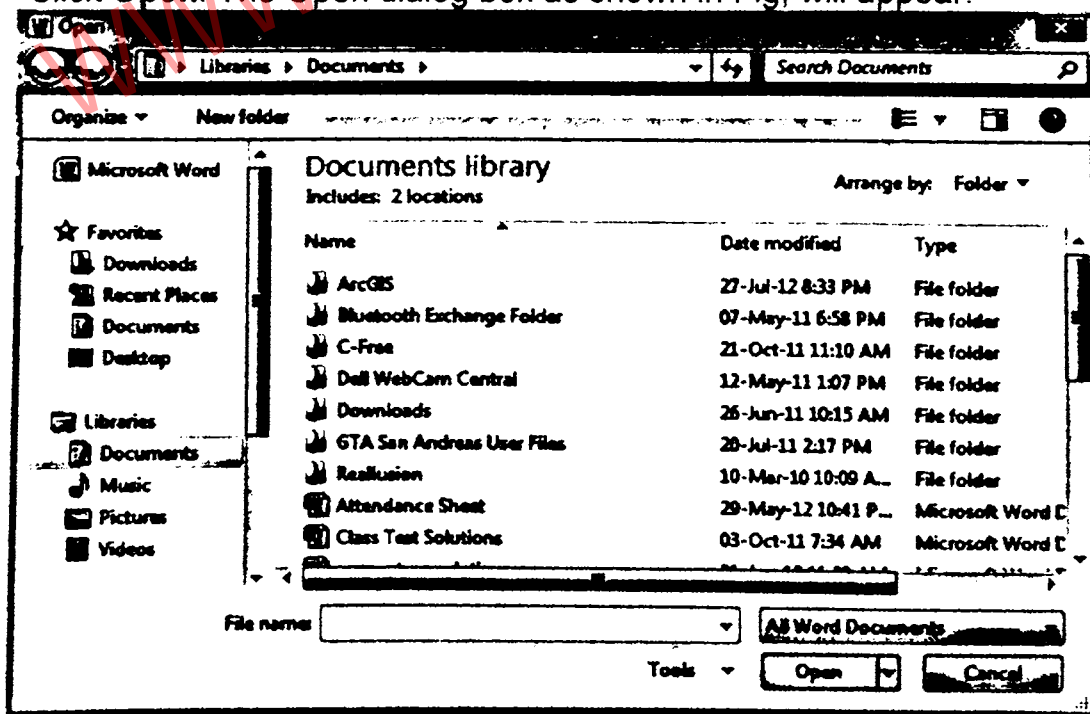
3. Select **Blank document** which is below **Available Templates**. User can also start a new document by selecting a template.

4. Click **Create**. A new blank document will appear another way to start a new blank document is press Ctrl+N on the keyboard. Ctrl+N means keep pressing the Ctrl key while pressing the N key.

Q.11 Highlight the steps to opening a document.

Ans: Opening a Document:

1. Click the **File** tab.

2. Click **Open**. The Open dialog box as shown in Fig, will appear.

Open dialog box

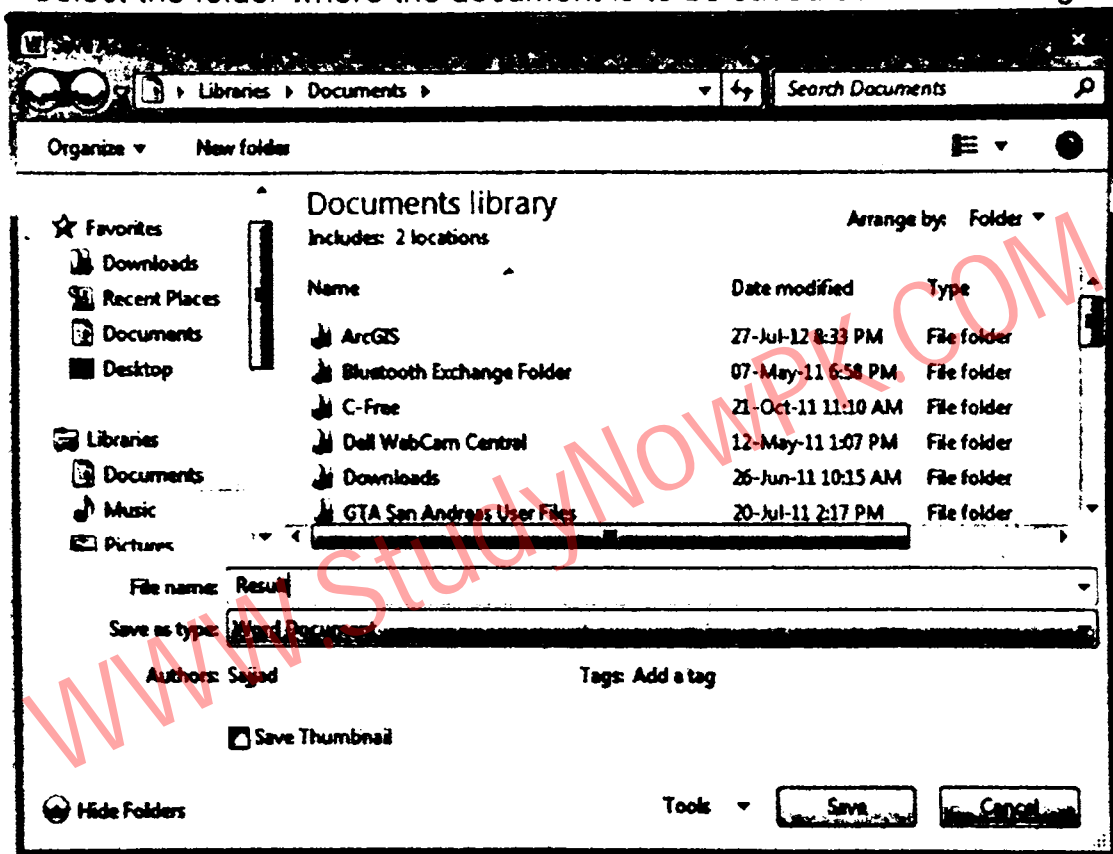
3. Select the document and click **Open**.

If the user has recently opened the document that he wants to open then he can follow the steps given below.

1. Click **File** tab.
2. Click **Recent**.
3. Select the document from the **Recent Document list**.

Q.12 Highlight the steps to save a document.

Ans: Saving a Document:

1. Click **File** tab.
2. Click **Save** or **Save As**.
3. Select the folder where the document is to be saved as shown in Fig.

Save As dialog box

4. Give a file name to your document.
5. Click **Save**.

Save icon.

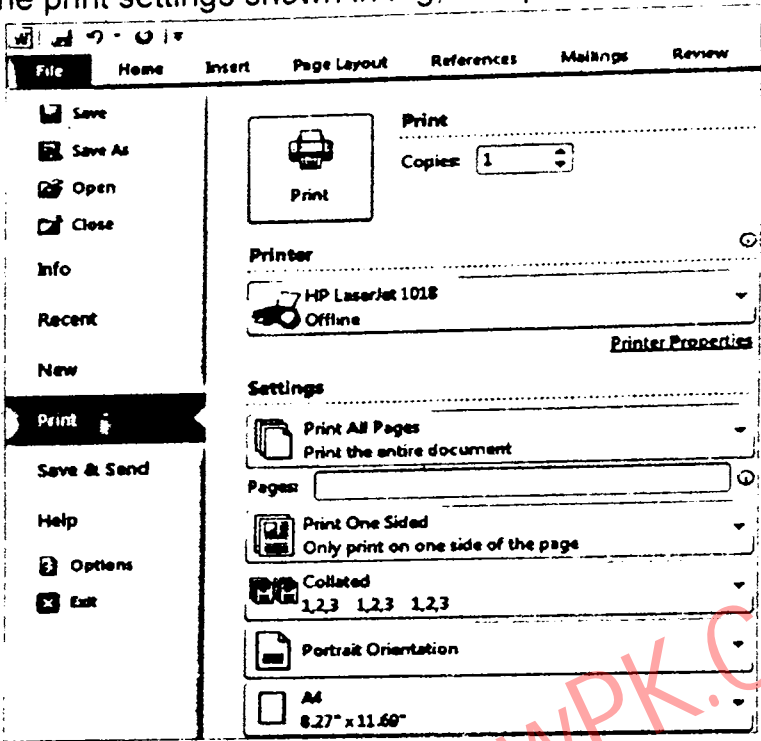
Save As option is used when changes have been made in an existing file and the user wants to save the new version of the document with a different file name.

Another way to save a document is, click the **Save** icon on the Quick Access Toolbar and give the new document a file name.

Q.13 Highlight the steps to print a document.

Ans: Printing a Document:

The following are the steps to print a document.

1. Click the **File** tab.
2. Select **Print**.
3. Change the print settings shown in Fig. if required and click **Print**.

Printing a document

Q.14 Explain the process of inserting and editing text.

Ans: Inserting and Editing Text:

To insert text in a document, type it using the keyboard. The text will appear at the insertion point. When typing a paragraph, there is no need to press the Enter key at the end of the line. When the user reaches the right margin, Word will automatically position the insertion point at the beginning of the next line.

The user should only press the Enter key when he wants to end a line of text, start a new paragraph or insert a blank line. Shortcut keys for cursor movement are shown in Table.

Shortcut keys for cursor movement

Cursor Movement	Shortcut Key
Beginning of the line	Home
End of line	End
Top of the document	Ctrl + Home
End of document	Ctrl + End

Q.15 Explain mouse commands for selecting items/text.

Ans: Selecting Text:

To move or copy words, sentences or paragraphs to another location in the document, first select the text and then use cut-and-paste or copy-and-paste technique.

Commands shown in Table are used for selecting various items in a document with mouse.

Mouse commands for selecting items

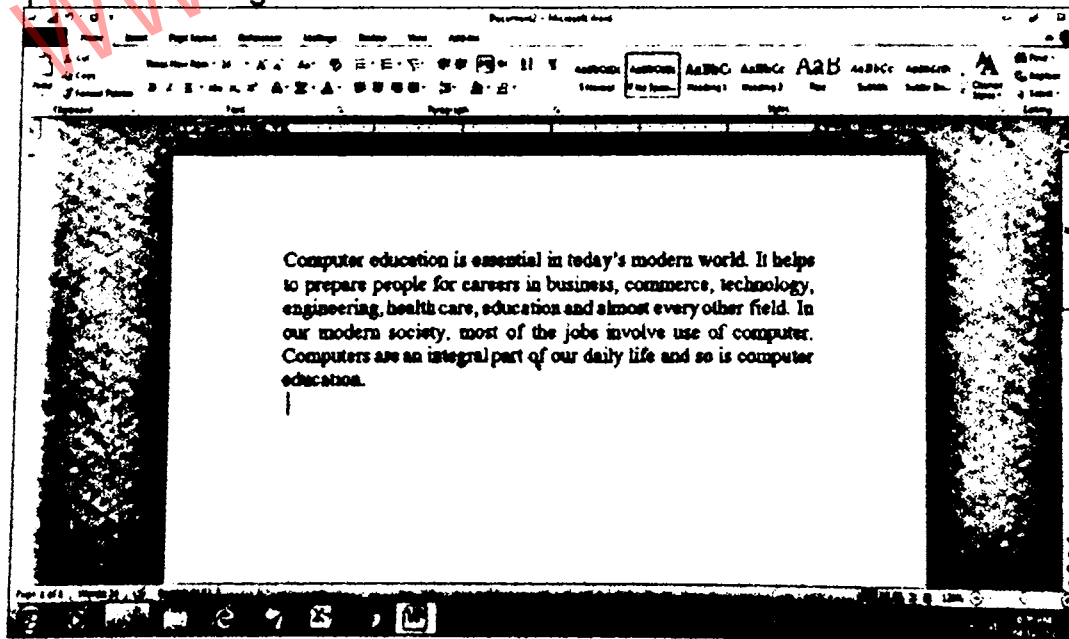
Item to Select	Mouse Command
Characters	Drag through characters
Single word	Double-click the word
Words	Drag through words
Sentence	Press and hold down Ctrl key and click anywhere in the sentence
Line	Move the mouse pointer to the left of the line until it changes to a right-pointing arrow and then single click
Paragraph	Move the mouse pointer to the left of the paragraph until it changes to a right-pointing arrow and then Double-click
Entire document	Move the mouse pointer to the left of the document until it changes to a right-pointing arrow and then triple-click
Block of text	Click at the beginning of the text to be selected. Move the mouse pointer to the end of the selection and hold down Shift key and then click or drag through the text.
Graphic	Click the graphic

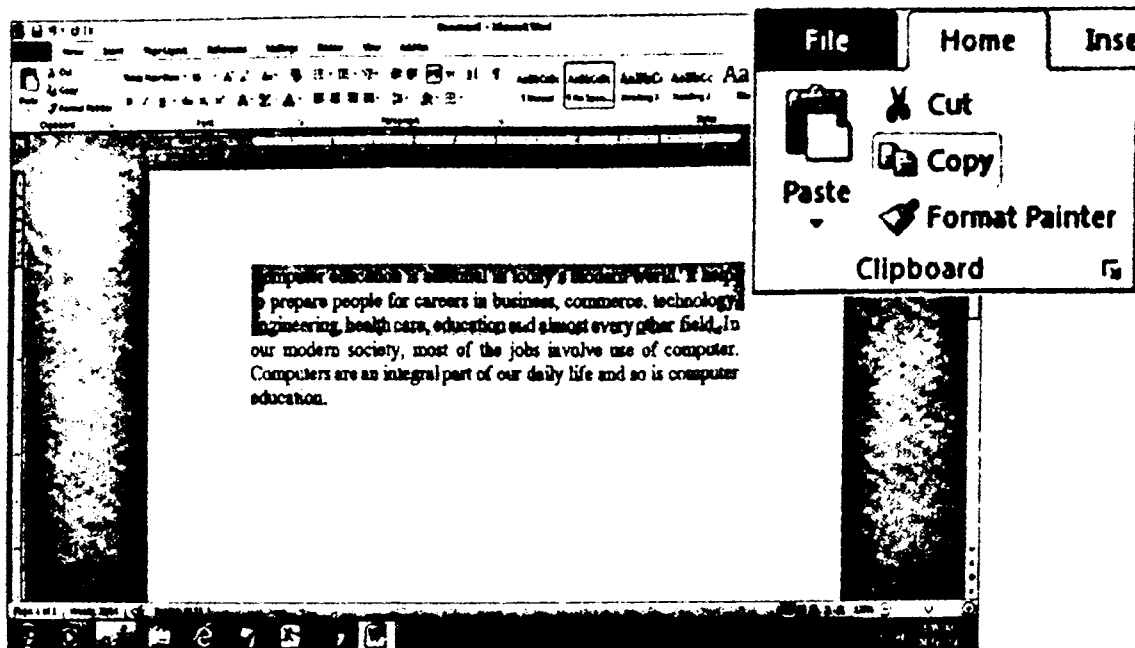
Tip

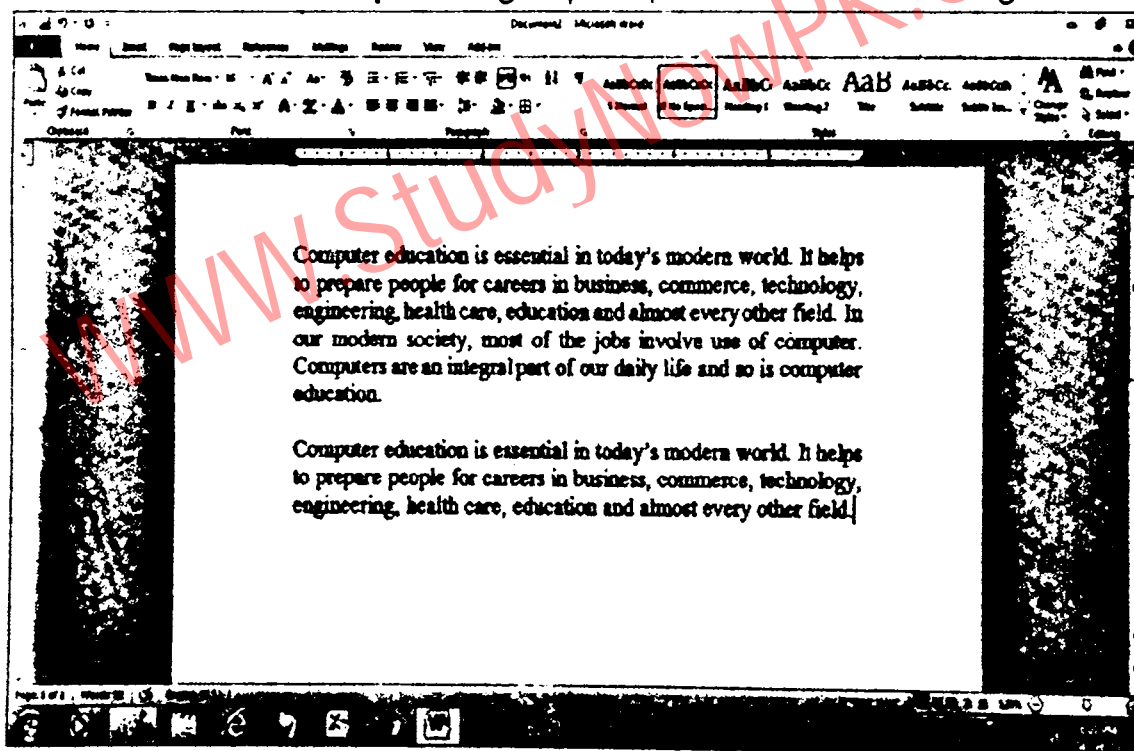
To search text in a document, press Ctrl+F, type the search text in the box and press Enter.

Q.16 Explain the steps to copy or move the first two sentences of the paragraph.

Ans: Copying and Moving Text:

The following are the steps to copy or move the first two sentences of the paragraph shown in Fig.

Paragraph in Word window

1. Select the text that is to be copied or moved as shown in Fig.

Text selected for copying

2. Click **Copy** or **Cut** in the **Clipboard** group of **Home** tab as shown above.
3. Position the mouse pointer at the location where you want to copy or move the text.
4. Click **Paste** in the **Clipboard** group. Copied text is shown in Fig.

Text copied at the end of paragraph after leaving one blank line

Q.17 Describe the method for copying and moving text using shortcut keys.

Ans: There is another method for copying and moving text using shortcut keys. The steps for this are given below.

Select the text.

1. Press **Ctrl+C** for copying or **Ctrl+X** for moving text.
2. Position the mouse pointer to the location where you want to copy or move the text.
3. Press **Ctrl+V** for pasting the text.

Q.18 Describe the method for copying and moving text using shortcut keys.

Ans: There is a third method for copying and moving text. The following are the steps for this method.

1. Select the text as shown in Fig.

Shortcut menu for copying or moving text

2. Right click anywhere inside the selected text to display the shortcut menu.
3. Click **Copy** or **Move** in the shortcut menu.
4. Move the mouse pointer where you want to copy or move the text.
5. Right click and then click **Paste** in the shortcut menu.

Deleting Text:

To delete text, select the text using any of the methods described earlier and then press **Delete** key.

Q.19 Highlight minimize/maximize of ribbon.

Ans: Minimize/Maximize Ribbon:

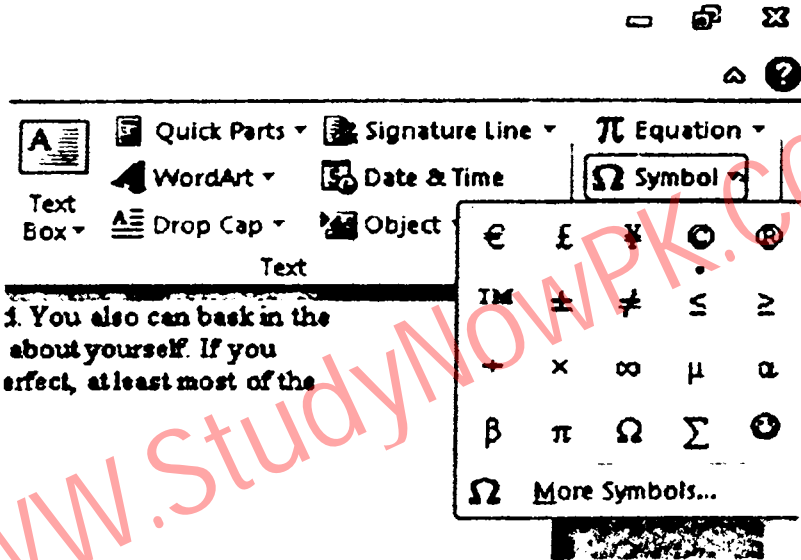
To minimize the Ribbon for more screen space, click the arrow in the upper-right corner of the Ribbon as shown in Fig. When Ribbon is minimized, click on a tab to display it. The Ribbon will disappear again when it is not in use. To maximize the Ribbon, click the arrow again.

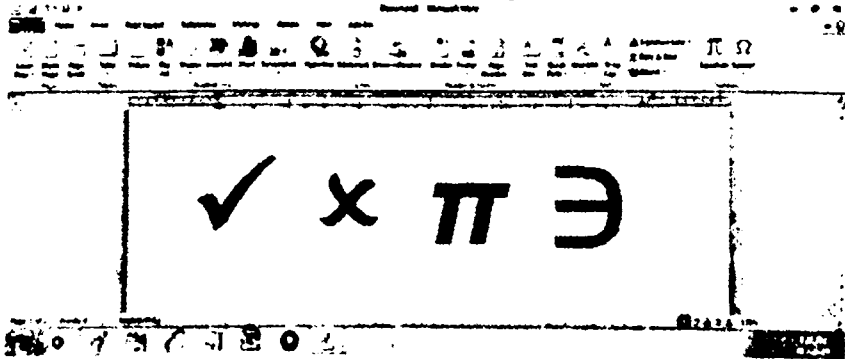
Minimizing or maximizing Ribbon

Q.20 Explain the steps to insert symbols or special characters in documents.

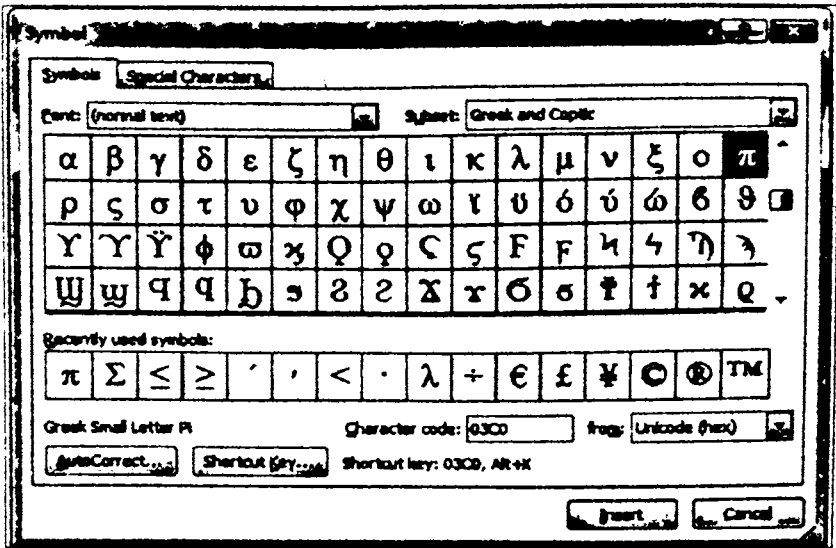
Ans: Inserting Symbols:

The following are the steps to insert symbols or special characters in documents.

1. Click **Insert** tab.
2. Click **Symbol** which is at the right end of ribbon. A group of symbols will be displayed as shown in Fig.

Inserting symbols in document

3. Click the symbol that is to be inserted in document. The symbols will be inserted in the document as shown in Fig.

Symbols inserted in document

Displaying of more symbols:

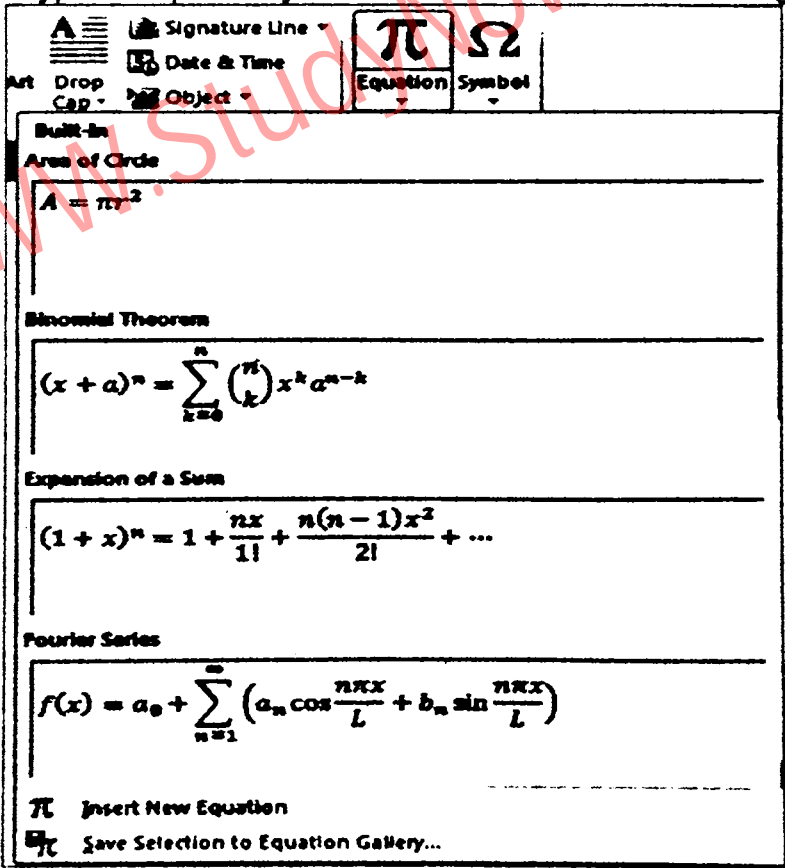
To display more symbols, click **More Symbols** in the **Symbol** menu. A new dialog box will open with two tabs, **Symbols** and **Special Characters** as shown in Fig. Now, select the symbol and click the **Insert** button.

Symbol dialog box

Q.21 Explain the steps to insert built-in equation.

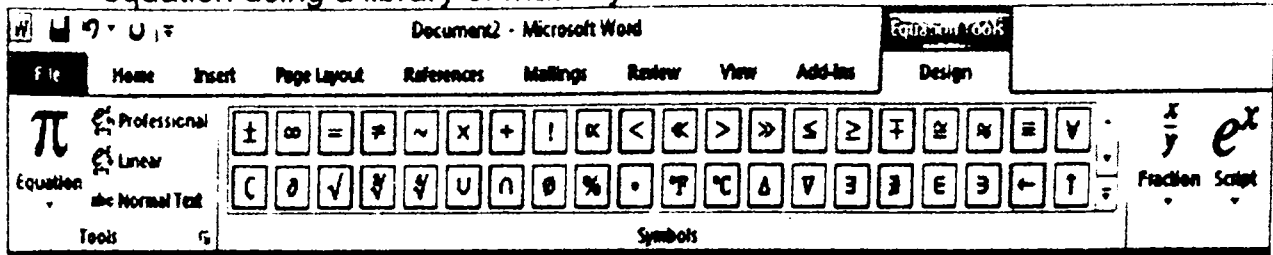
Ans: Inserting Equation:

Word allows user to insert common mathematical equations or build up his own equations using a library of symbols.

The following are the steps to insert built-In equation.

1. Click **Insert** tab.
2. Click **Equation** button on the Symbols group.
3. Select the type of equation you want to insert as shown in Fig.

Inserting equation

To following steps allow the user to insert his/her own equation.

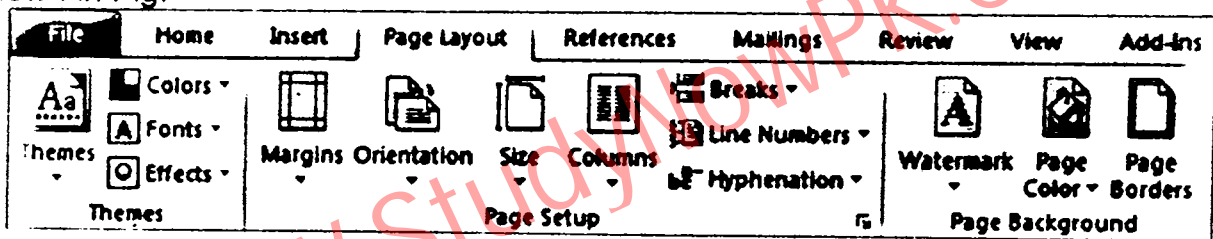
1. Click **Insert** tab.
2. Click π button on the **Symbols** group. This will open the **Design** tab shown in Fig, that allows inserting common mathematical equations or build equation using a library of math symbols.

Design tab for inserting equation

Q.22 Explain the steps of page formatting for the entire page.

Ans: Page Formatting:

Page formatting refers to formatting that affects the entire page such as changing page orientation, margins, page numbering, header and footer, etc.

Page formatting commands:

Page formatting commands are included in the **Page Layout** tab on the **Ribbon**. These are in the **Themes**, **Page Setup** and **Page Background** groups as shown in Fig.

Page Layout tab

Commonly used page formatting commands:

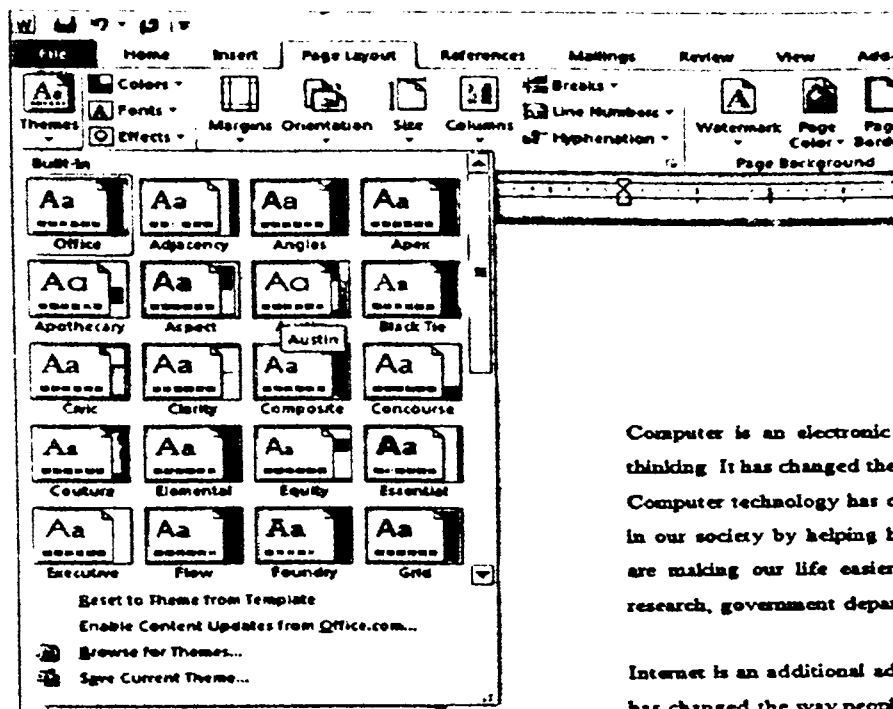
Commonly used page formatting commands include changing theme, margins, orientation, page size and background

Q.23 Explain that Themes change the overall appearance of the entire document.

Ans: Document Theme:

Themes change the overall appearance of the entire document, including colors, fonts and effects.

The following are the steps to apply a theme.

1. Click the **Page Layout** tab.
2. Click the **Themes** button in the **Themes** group.
3. Select a theme to apply from the menu shown in Fig. If the user does not like the selected theme, he can select another one. To remove a theme from the document select Office theme.

Applying a theme to a document

Q.24 Explain the steps to set page margins.

Ans: Page Margins:

Page Margins refer to the amount of blank space that appears at the top, bottom, left and right edges of a document.

The following are the steps to set margins.

1. Click the **Page Layout** tab.
2. Click **Margins** button.
3. Select margins from the menu that appears as shown in Fig.

Setting page margins

Q.25 Explain the steps to apply a page orientation.

Ans: Page Orientation:

Page orientation refers to the way rectangular page is oriented for viewing.

Types of page orientations:

There are two types of page orientations which are portrait and landscape.

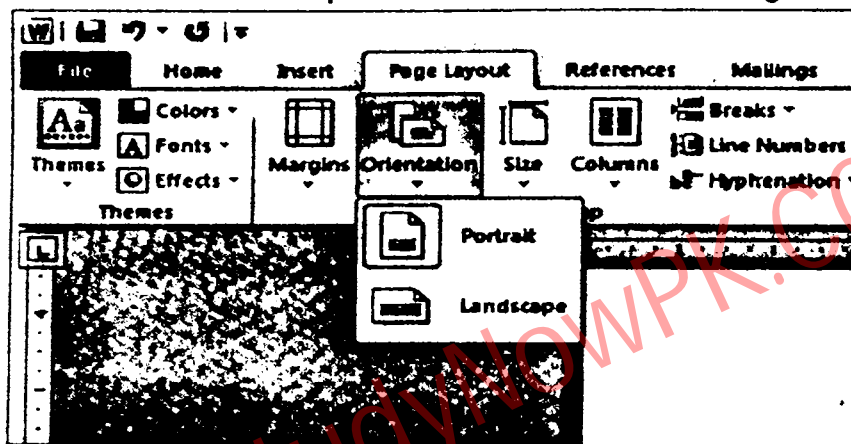
Portrait orientation:

In portrait orientation, the height of display is greater than width.

Landscape orientation:

In landscape orientation, the width of display is greater than height.

The following are the steps to apply a page orientation.

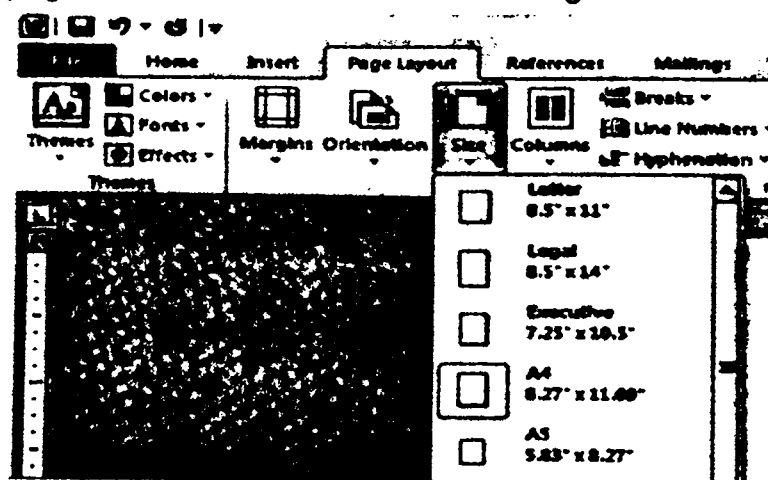
1. Click **Page Layout** tab.
2. Click **Orientation** button in the **Page Setup** group.
3. Select **Portrait** or **Landscape** orientation as shown in Fig.

Applying page orientation

Q.26 Explain the steps to set page size.

Ans: Page Size:

Page size refers to the height and width of page.

The following are the steps to set page size.

1. Click **Page Layout** tab.
2. Click **Size** button in the **Page Setup** group.
3. Select a page size from the menu shown in Fig.

Selecting a page size

Q.27 Explain the page background.

Ans: Page Background:

The **Background** group has three items to set for the document which include **Watermark**, **Page Color** and **Page Borders**.

Watermark: Watermark inserts dim text behind the content of the page.

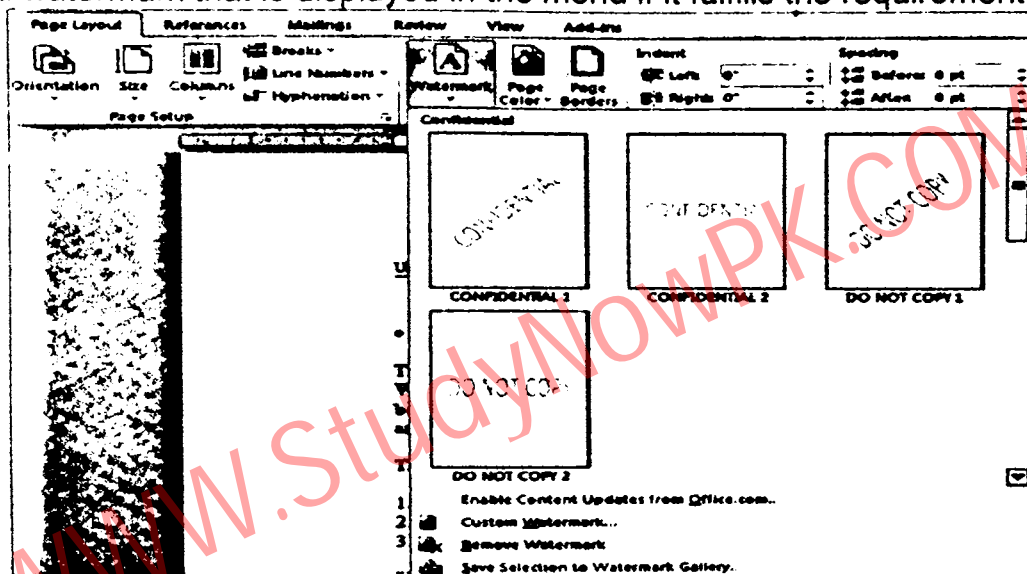
Page Color: Page Color sets the page background color.

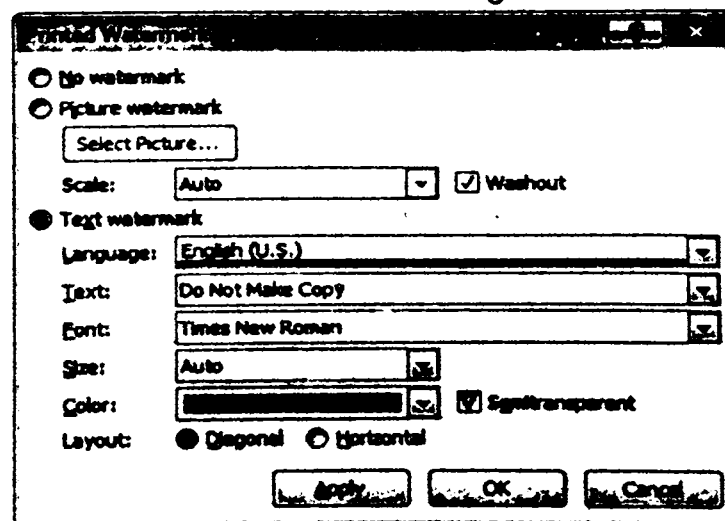
Page Borders: Page Borders option inserts or changes the border around the page.

Q.28 Highlight the steps to set watermark.

Ans: Steps to set watermark:

The following are the steps to set watermark

1. Click **Page Layout** tab.
2. Click **Watermark** command in the **Page Background** group.
3. Click **Custom Watermark** from the menu shown in Fig. User can also select a watermark that is displayed in the menu if it fulfills the requirement.

Creating a watermark

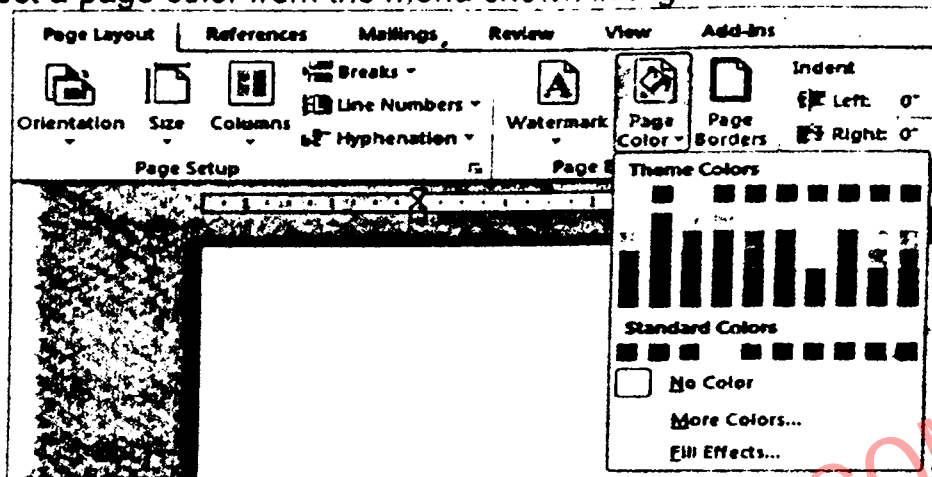
4. Type the text for watermark as shown in Fig.

Dialog box to create watermark

5. Click **Apply** and then click **Close** to close the dialog box.

Q.29 Highlight the steps to set page color.

Ans: Steps to set page color:

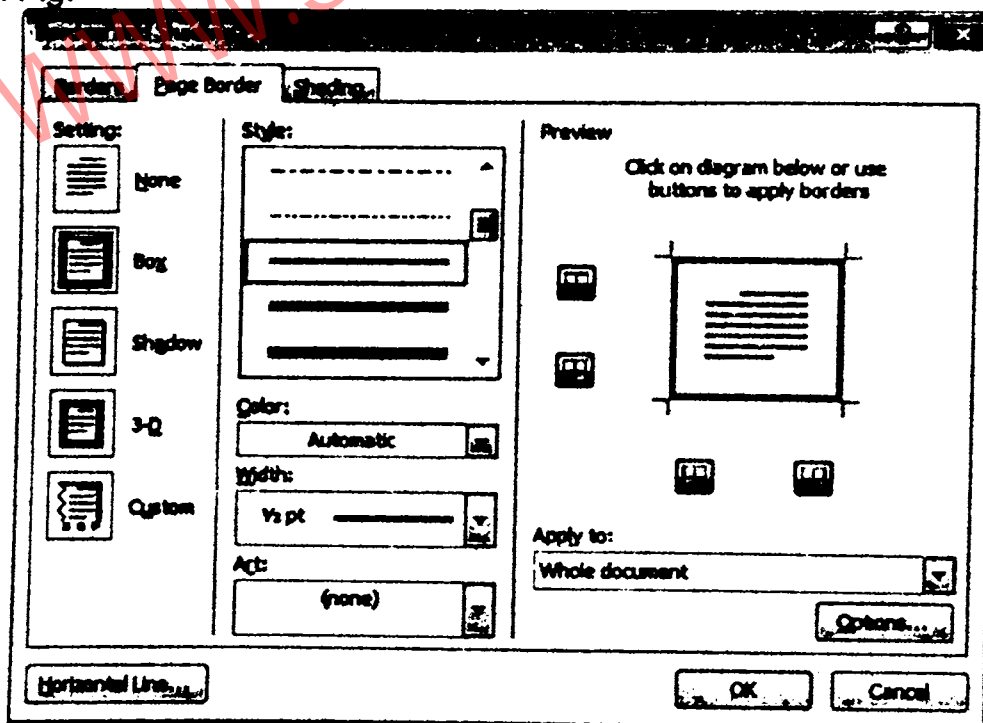
The following are the steps to set page color.

1. Click **Page Layout** tab.
2. Click the **Page Color** command.
3. Select a page color from the menu shown in Fig.

Setting a page color

Q.30 Highlight the steps to set page border.

Ans: Steps to set page border:

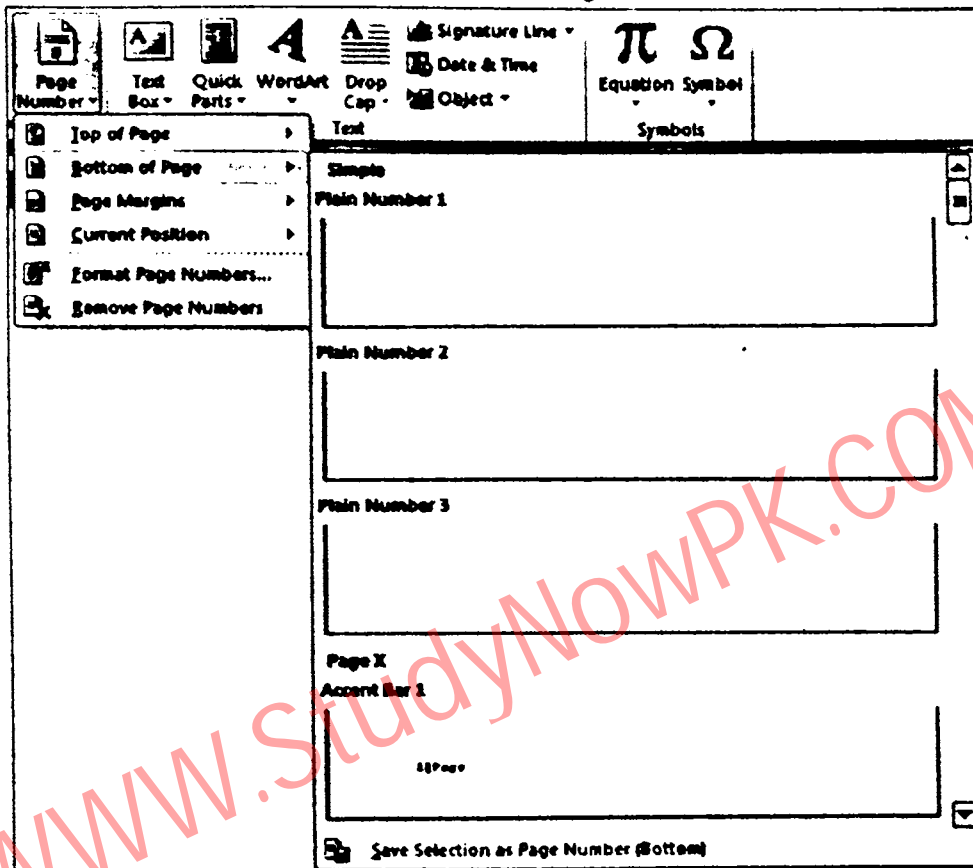
The following are the steps to set page border.

1. Click **Page Layout** tab.
2. Click the **Page Borders** command in **Page Background** group.
3. Select a page border style from the **Borders and Shading** dialog box shown in Fig.

Selecting a page border style

Q.31 Explain the steps for inserting page numbers in documents.

Ans: Inserting Page Numbers:

The following are the steps for inserting page numbers in documents.

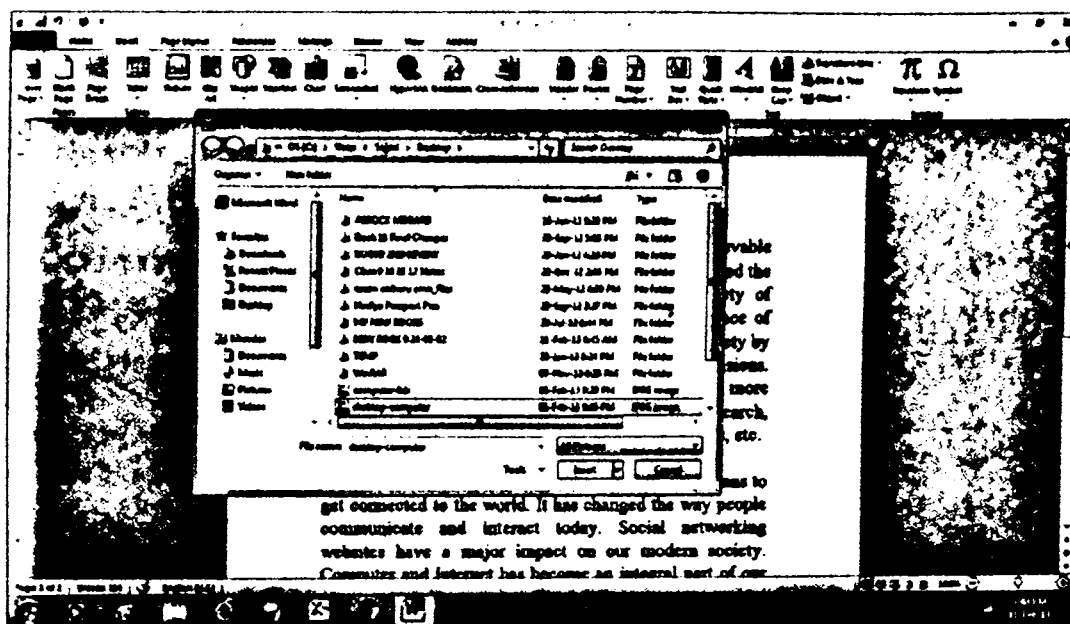
1. Click the **Insert** tab.
2. Click **Page Number** in the **Header & Footer** group. A drop-down menu will appear.
3. Move the mouse pointer on **Top of Page** or **Bottom of Page** command. This will open a submenu as shown in Fig.

Inserting page number at the bottom of page

4. Select an option from the submenu. Page number will be inserted in the document and **Design** tab will appear on the **Ribbon**.
5. Set the value for Header from Top or Footer from Bottom in the **Position** group of **Design** tab if required.
6. Click the **Close Header and Footer** button on the **Design** tab.

Q.32 Explain the steps for inserting a picture in documents.

Ans: Inserting and Positioning Picture:

The following are the steps for inserting a picture in a document.

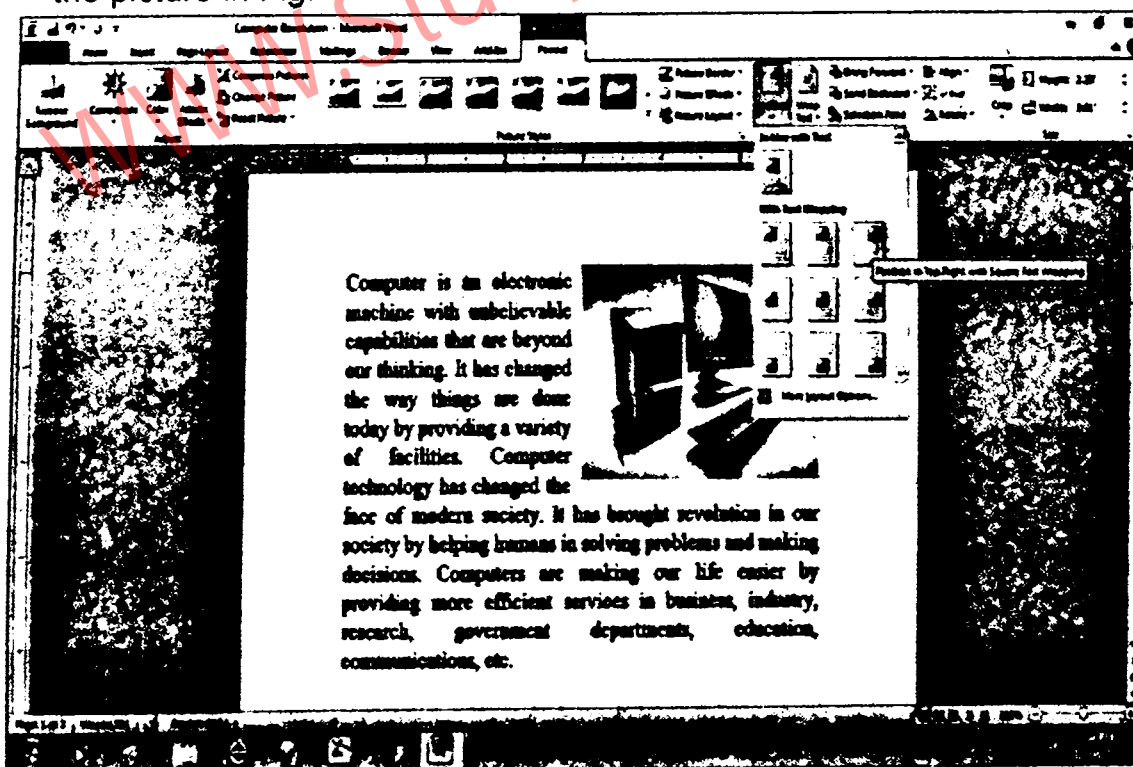
1. Place the cursor where to insert the picture.
2. Click **Insert** tab.
3. Click **Picture** command in **Illustrations** group. The **Insert Picture** dialog box will appear as shown in Fig.

Insert Picture dialog box

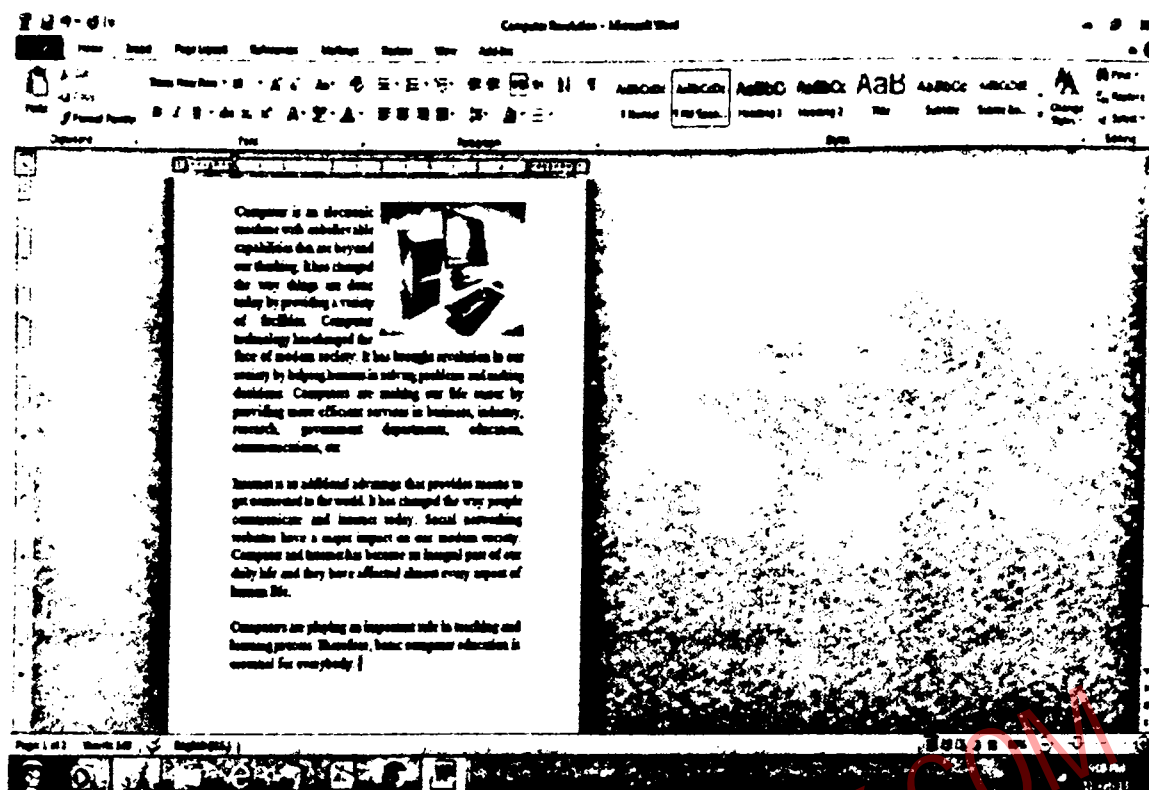
4. Browse and select the picture file to insert and click **Insert** button.

Q.33 Highlight the steps for positioning picture on page.

Ans: Positioning Picture within a Page:

The following are the steps for positioning picture on page.

1. Click the picture that is to be positioned. **Format** tab will appear on the screen.
2. Click **Position** command on the **Arrange** group.
3. Select a position from the menu. Top right corner is selected for positioning the picture in Fig.

Positioning a picture within a page

4. Picture positioned at top right corner of page is shown in Fig.

Picture positioned at top right corner of page

Do you Know?

If you want to change the page number format, click Insert tab then click Page Number and select Format Page Numbers

Q.34 Define WordArt.

Ans: WordArt:

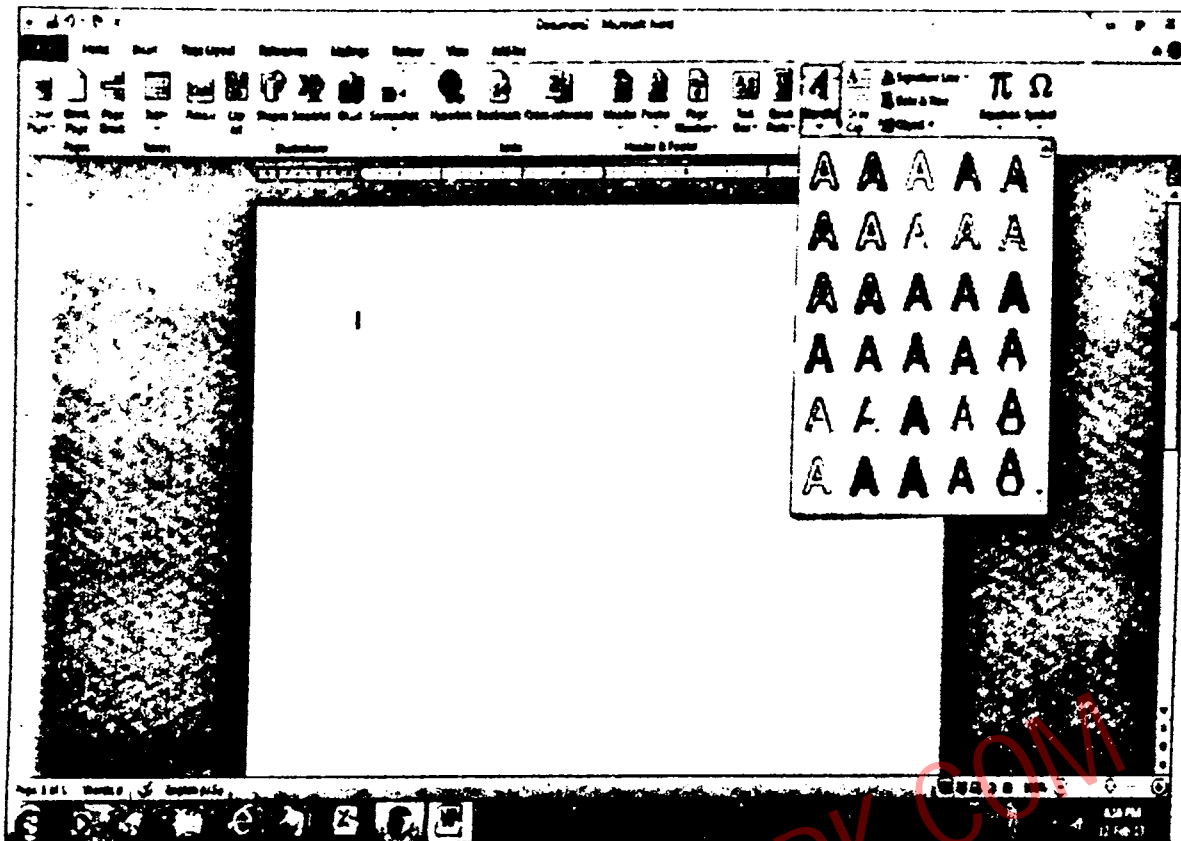
WordArt is a text modifying feature in Word to create decorative effects such as shadow, colors, outlines, 3D effects, changing shape of text, etc. as shown in Fig. It is also possible to convert existing text into WordArt.

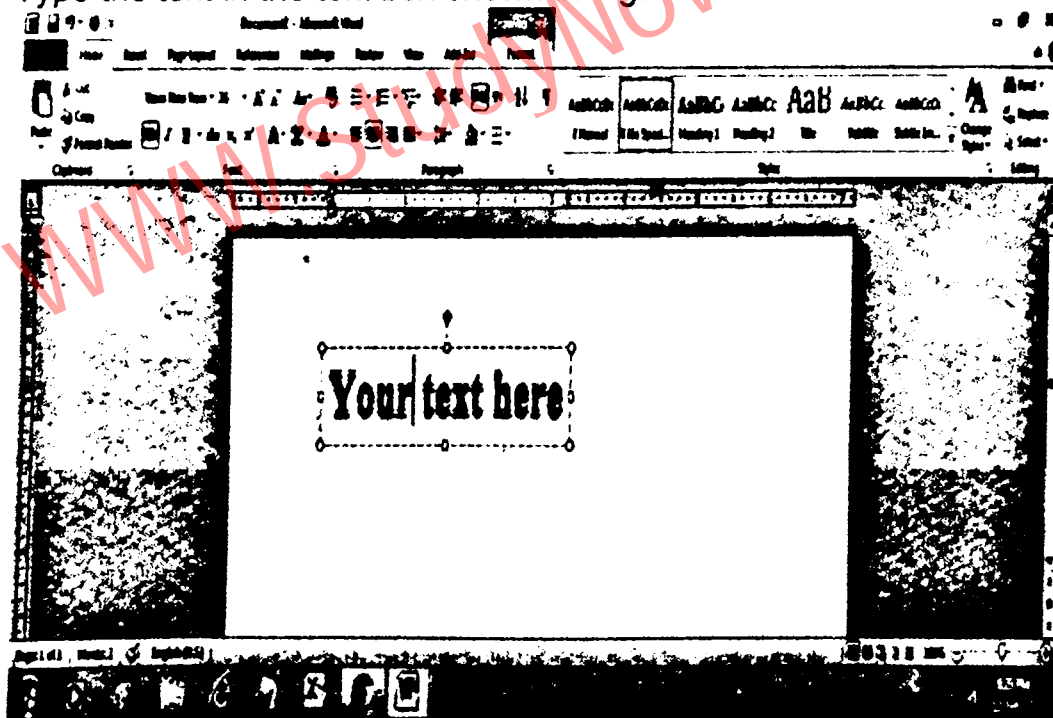
Text created with WordArt

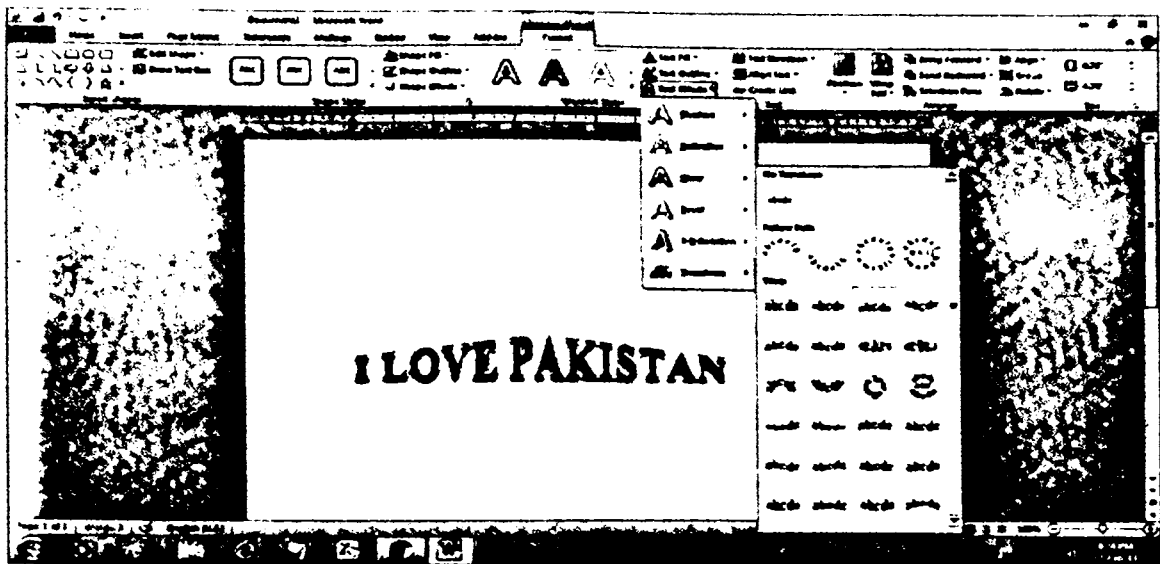
Q.35 Highlight the steps to insert WordArt in a document.

Ans: Insert WordArt in a document:

The following are the steps to insert WordArt in a document.

1. Click the **Insert** tab.
2. Click **WordArt** in the **Text** group.
3. Select character style from the drop-down menu shown in Fig. **Format** tab will appear on the Ribbon.

Inserting WordArt

4. Type the text in the text box shown in Fig.

Entering text in WordArt

5. Click **Text Effects** command in the **WordArt Styles** group.
6. Move the mouse pointer over **Transform** and select a text effect from the submenu as shown in Fig.

Applying text effect

Q.36 Define Table, Cell and Dimension of the table.

Ans: Table: A table consists of rows and columns.

Cell: The intersection of a row and a column is called a cell. Text is entered in the cells.

Dimension of the table:

Before inserting a table in a document, user should know the number of rows and columns required. This is called the dimension of the table.

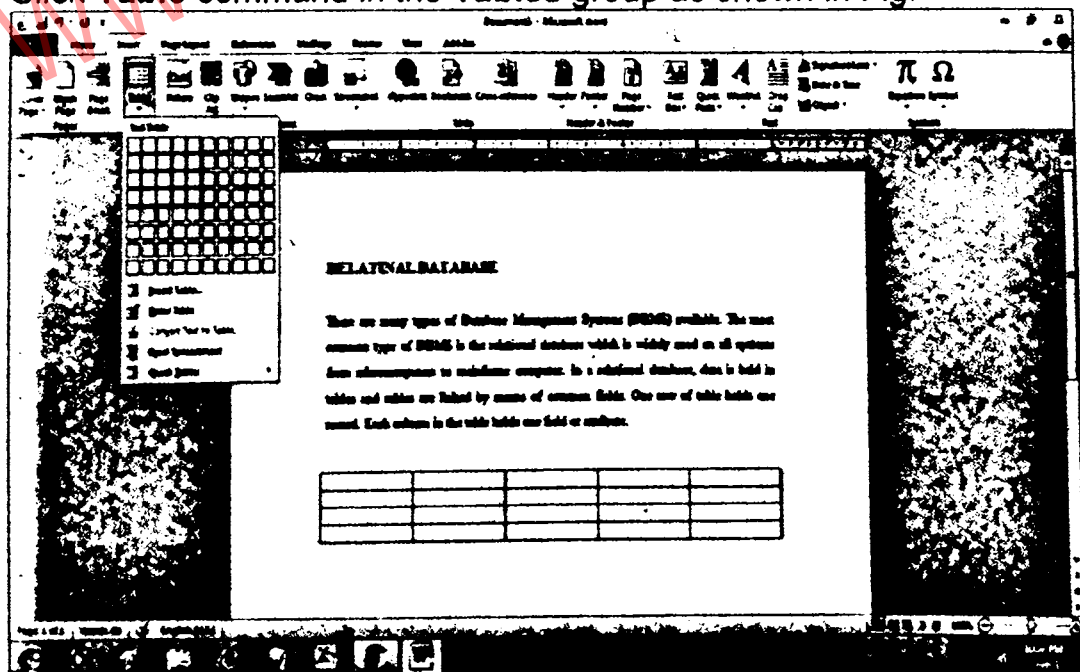
- User can easily add more rows or columns as required. In table dimension, the first number is the number of columns and the second number is the number of rows.

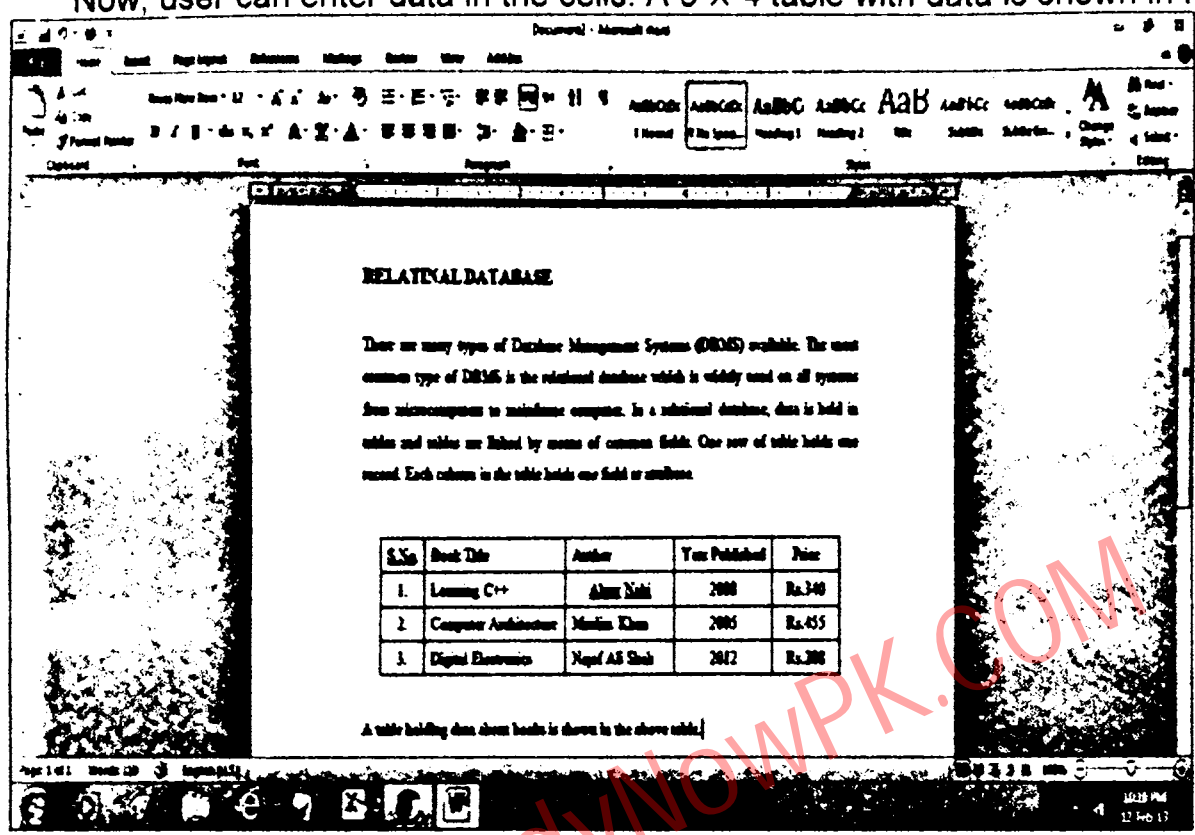
For example, a 5×4 (five by four) table means it has 5 columns and 4 rows.

Q.37 Highlight the steps for inserting a 5×4 table.

Ans: Inserting Table in a Document:

The following are the steps for inserting a 5×4 table.

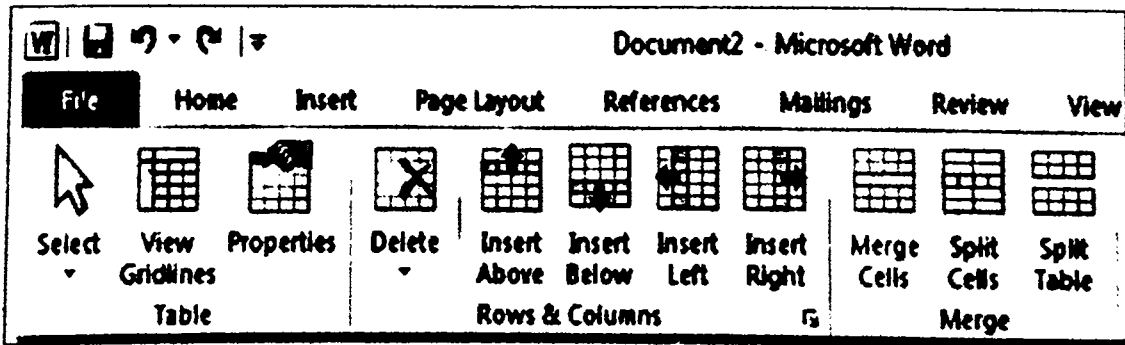
1. Click **Insert** tab.
2. Click **Table** command in the **Tables** group as shown in Fig.

Inserting a 5 × 4 table in a document

3. Position the mouse pointer on the cell in the fourth row and fifth column and click. A blank table consisting of 4 rows and 5 columns will be inserted in the document.
4. Now, user can enter data in the cells. A 5 × 4 table with data is shown in Fig.

Data entered in a 5 × 4 table

Q.38 Highlight the steps for adding and deleting rows or columns.

Ans: Adding and Deleting Rows or Columns:

The following are the steps for adding and deleting rows or columns.

1. To insert a row, click in the cell below or above which a blank row is to be inserted. To insert a column, click in the cell to the right or left of which a blank column is to be inserted. **Design** and **Layout** tabs will appear on the Ribbon.
2. Click the **Layout** tab.
3. Click the command in the **Rows & Columns** group shown in Fig, to insert a row or column.

Adding or deleting rows and columns

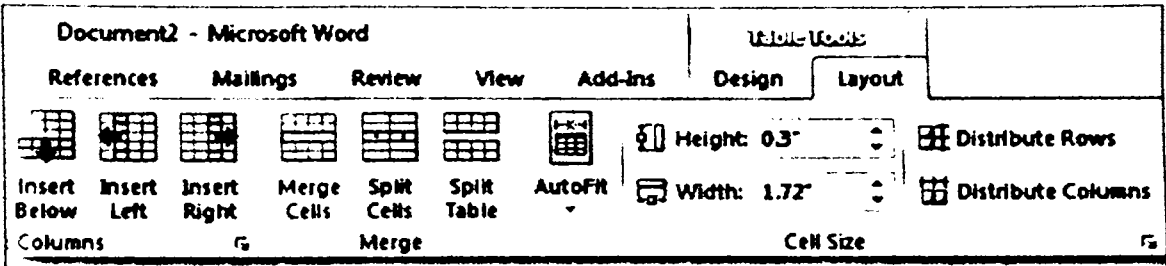
If you want to delete a row or column click the **Delete** command in the **Rows & Columns** group. Select the **Delete Rows** or **Delete Columns** from the drop-down menu. User can also delete the entire table by selecting **Delete Table**.

User can delete multiple rows or columns by selecting them by dragging and then clicking the **Delete** command.

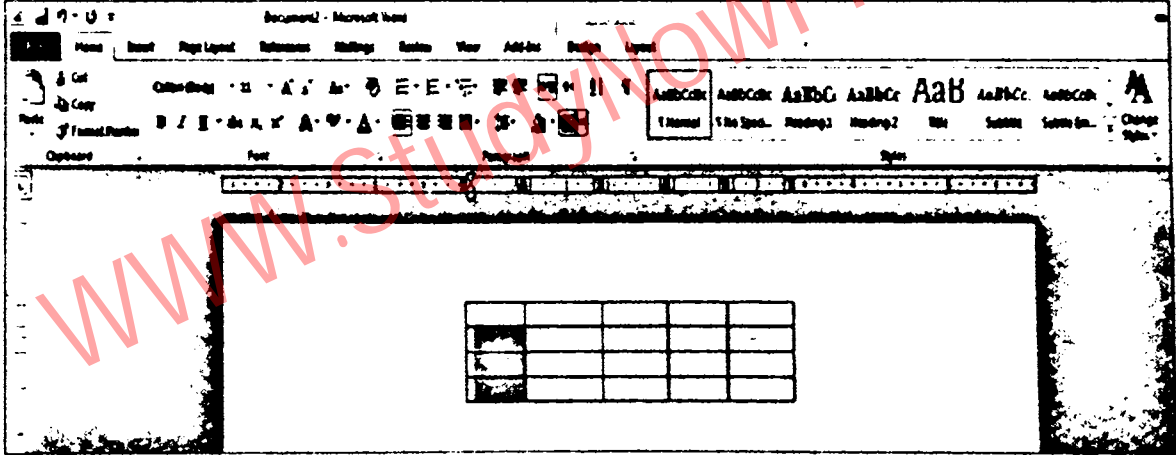
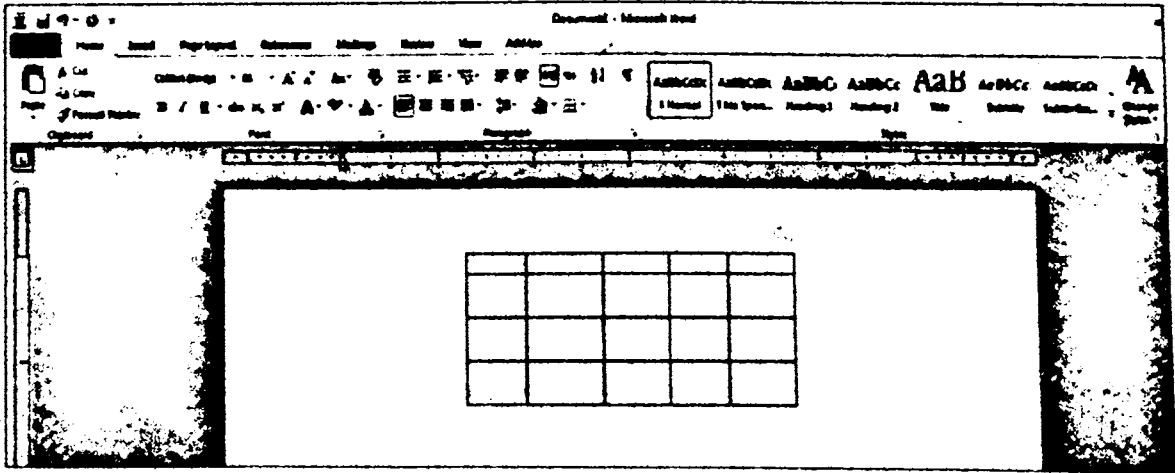
Q.39 Explain the steps for resizing row or columns.

Ans: Resizing Rows and Columns:

Following are the steps for resizing row or columns.

1. Click in any cell of row or column to change the height or width.
2. Click **Layout** tab as shown in Fig.

Resizing row and column size

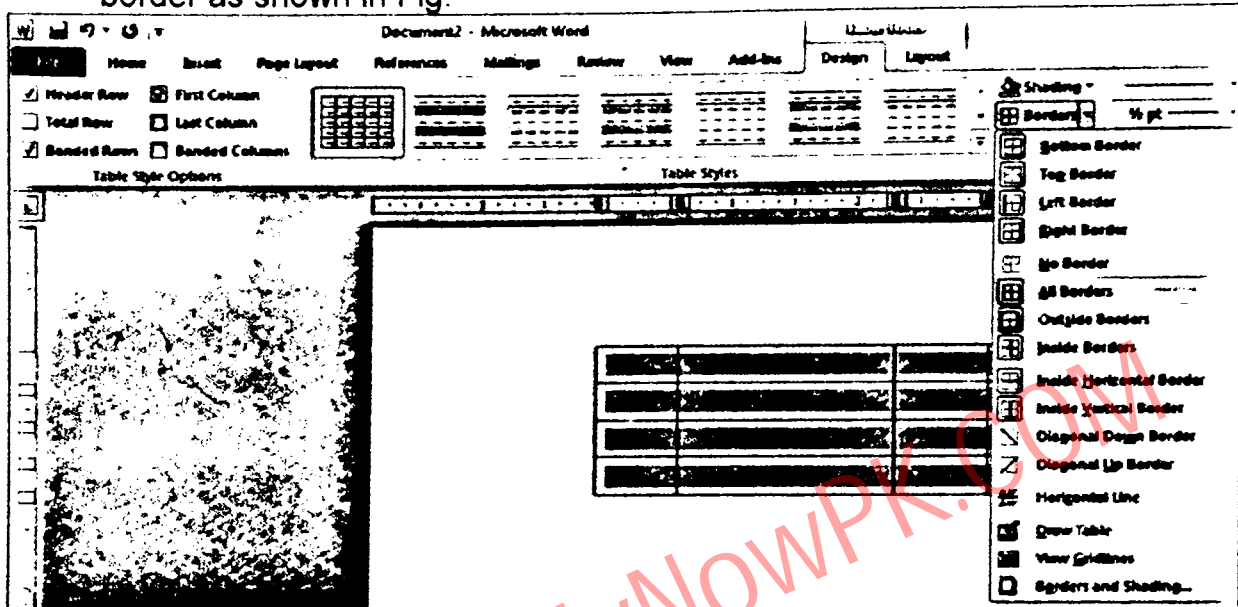
3. Resize row height or column width in the **Cell Size** group.

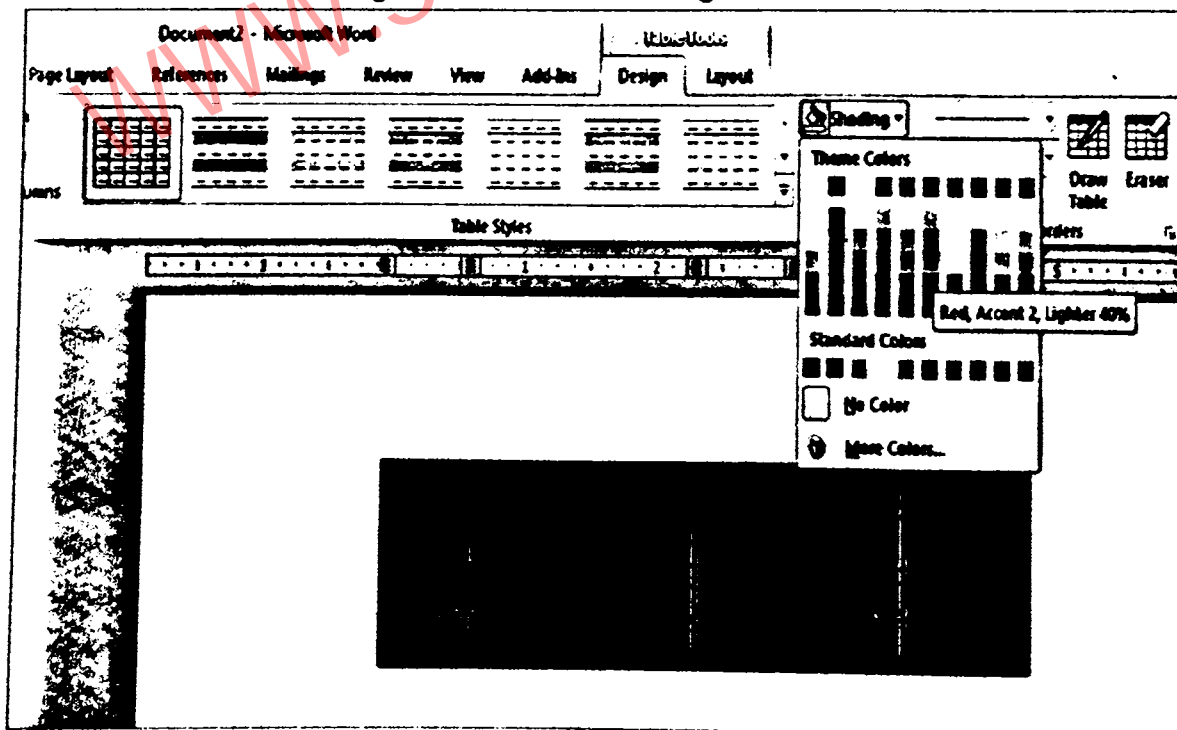
To resize multiple rows or columns, first select multiple rows or columns. Last three rows of table are selected for resizing in Fig (a).Table after resizing the last three rows is shown in Fig (b).

(a) Selection of multiple rows for resizing

(b) Table after resizing the last three rows

Q.40 Highlight the steps for adding or changing border lines and shading.

Ans: Adding or Changing Border Lines and Shading:

The following are the steps for adding or changing border lines and shading.

1. Select the cells
2. Click the **Design** tab.
3. Open the **Border** drop-down menu in the **Table Styles** group and select a border as shown in Fig.

Changing border lines of a table

4. For shading, open the **Shading** drop-down menu in the **Table Styles** group and select a shading color as shown in Fig.

Selecting a shading color for a table

Q.41 Explain the steps for merging or splitting.

Ans: Merging and Splitting Cells:

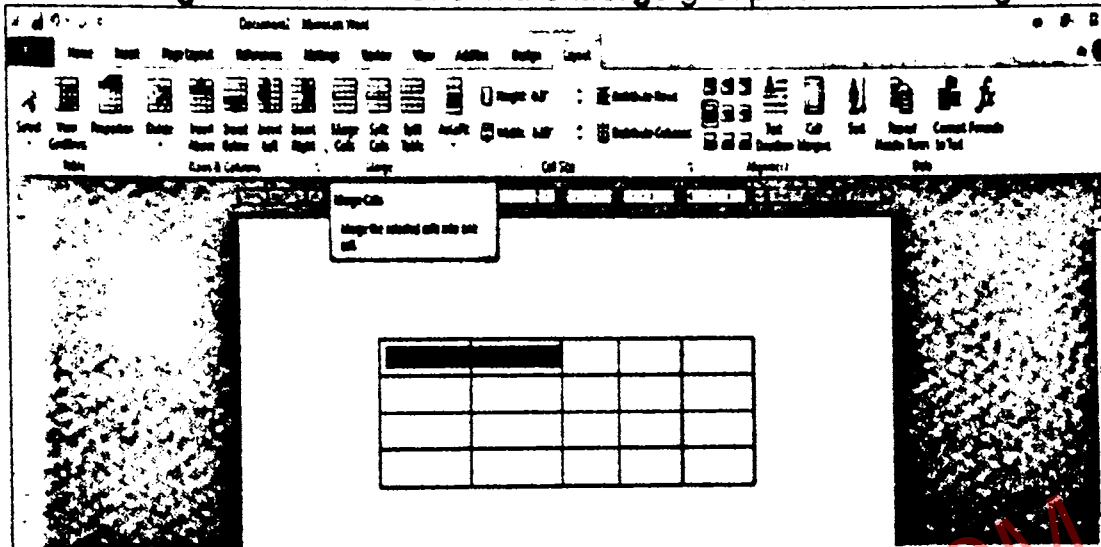
1. Select the cells for merging or splitting.
2. Click the **Layout** tab.
3. Click **Merge Cells** command in the **Merge** group as shown in Fig.

Selecting cells for merging

Table after merging the selected cells is shown in Fig. For splitting cells, click the **Split Cells** command in the same group and enter required values in the **Split Cells** dialog box and click **OK**.

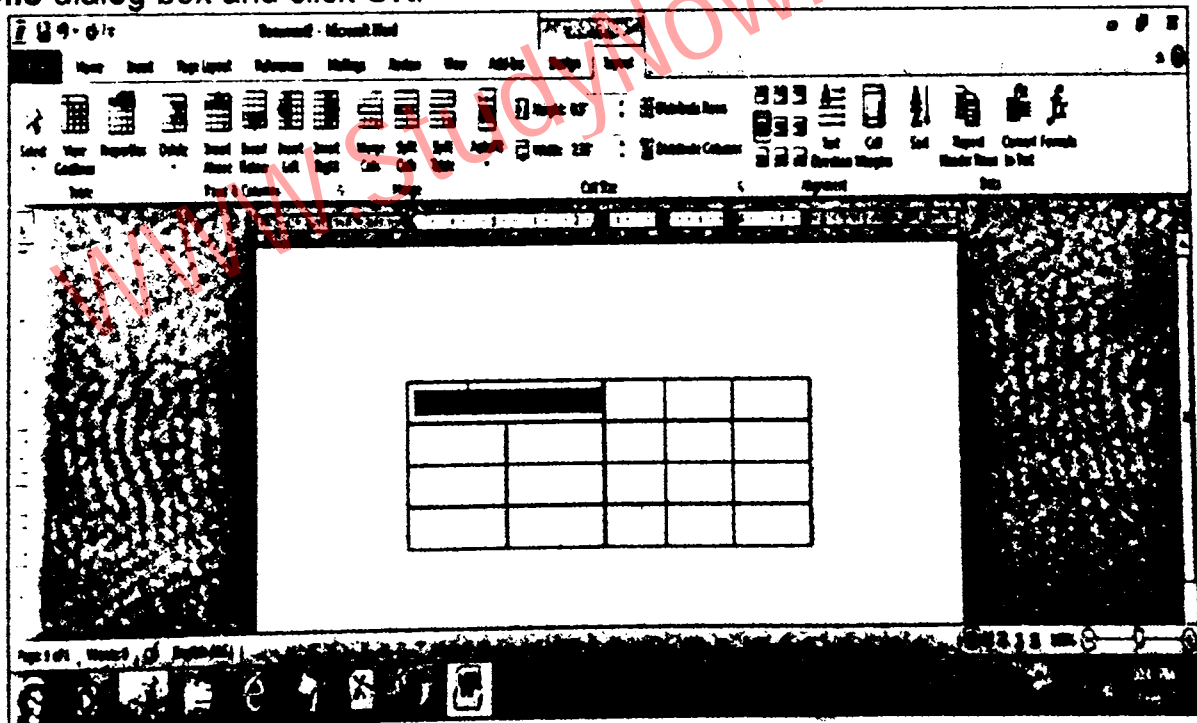



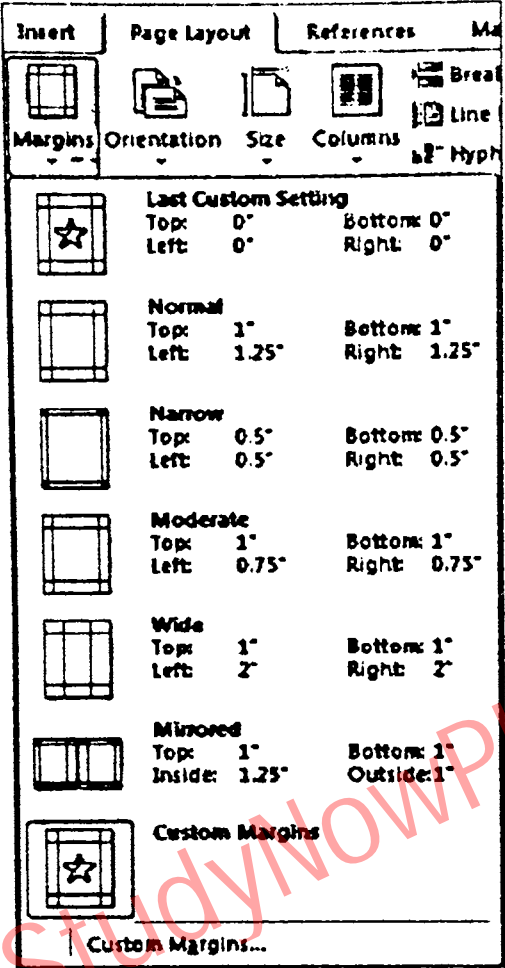
Table after merging two cells

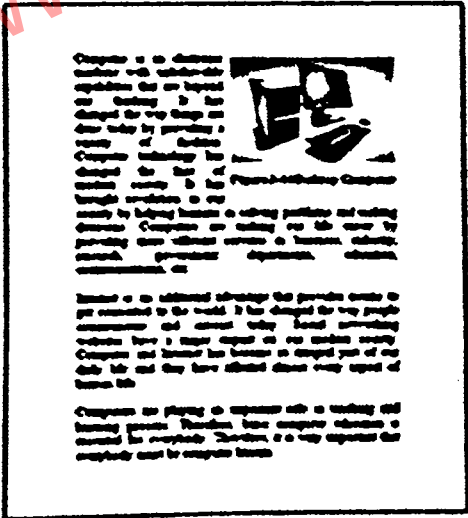
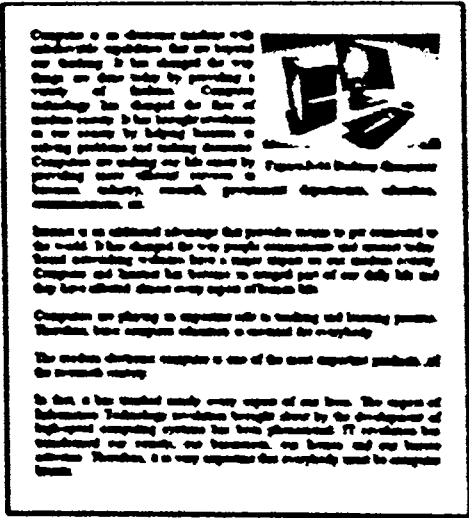
Q.42 Explain the steps for changing margins.

Ans: Steps for changing margins:

The following are the steps for changing margins.

1. Click **Page Layout** tab.
2. Click **Margins** in the **Page Setup** group

3. Select margins from the drop-down menu as shown in Fig, or click **Custom Margins** and set the required margins in the **Margins** tab of **Page Setup** dialog box.

Changing margins

4. Click **OK**.
A page with **Normal** margins and **Narrow** margins is shown in Fig.

(a)

(b)

(a) Page with Normal margins (b) Page with Narrow Margins

Q.43 Define Spreadsheet. What are the advantages of Spreadsheet?

Ans: Spreadsheet:

A spreadsheet is a grid of rows and columns in which user enters numbers and text. Spreadsheet programs are powerful multipurpose calculators, capable of everything from adding two plus two to solving problems that involve complicated calculations.

Advantages of Spreadsheet:

- Spreadsheet is used to store, organize, calculate and present numerical data in an easily understandable format.

Spreadsheet programs allow user to organize data, perform calculations, draw graphs of numeric data and develop professional looking reports.

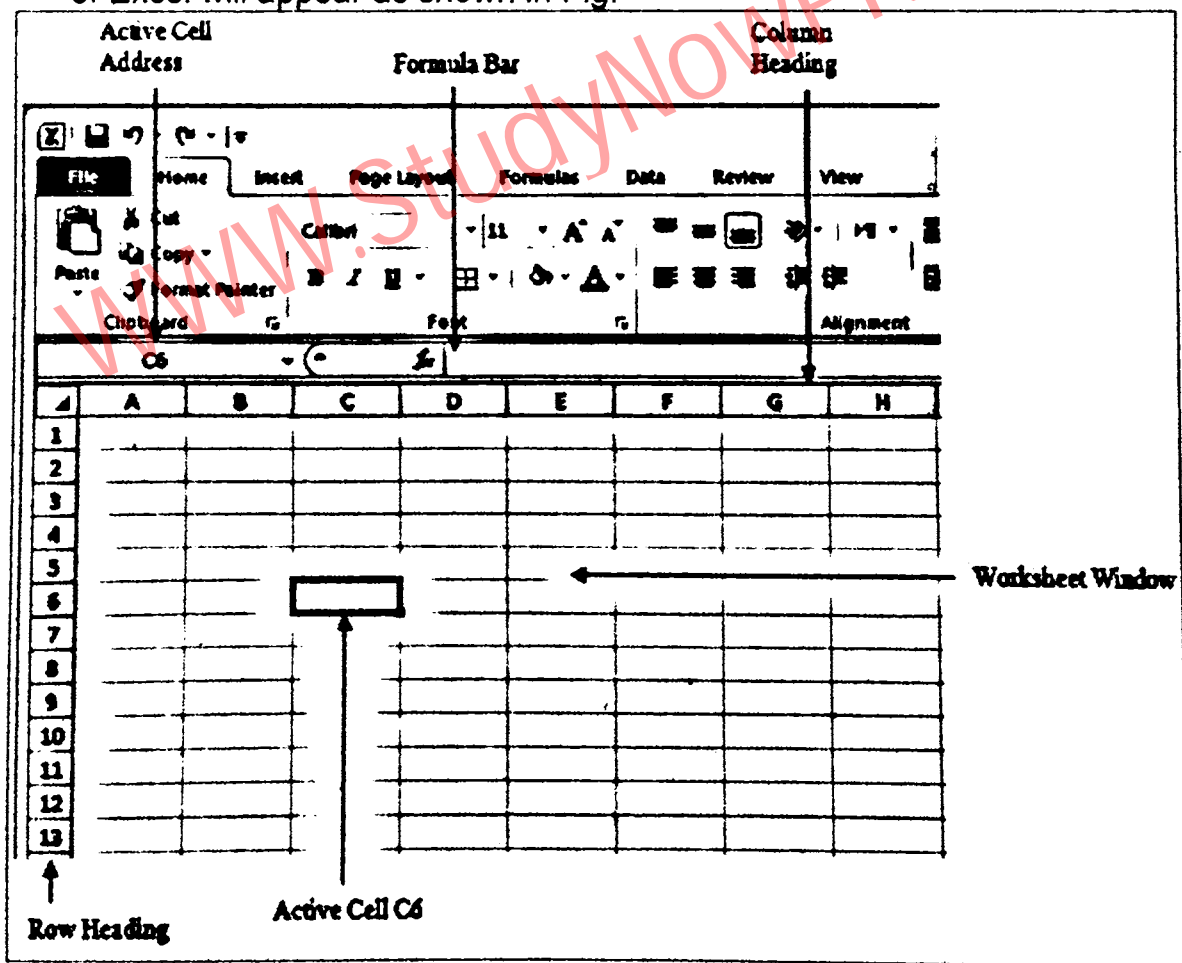
Microsoft Excel:

A common spreadsheet program is Microsoft Excel. It is a part of Microsoft Office 2010software. Therefore, use of Microsoft Excel 2010 will be explained.

Q.44 Write the steps to open the Excel program.

Ans: Opening the Microsoft Excel Program:

The following are the steps to open the Excel program.

1. Turn on the computer and click **Start** button.
2. Click **All Programs**.
3. Click **Microsoft Office** to display the submenu.
4. Click **Microsoft Excel 2010** to open the Excel program. The opening screen of Excel will appear as shown in Fig.

Opening screen of Microsoft Excel

Do you Know?

Microsoft was founded by Bill Gates and Paul Allen in April, 1975.

Q.45 Differentiate between Cells, cell's address and active cell or current cell.

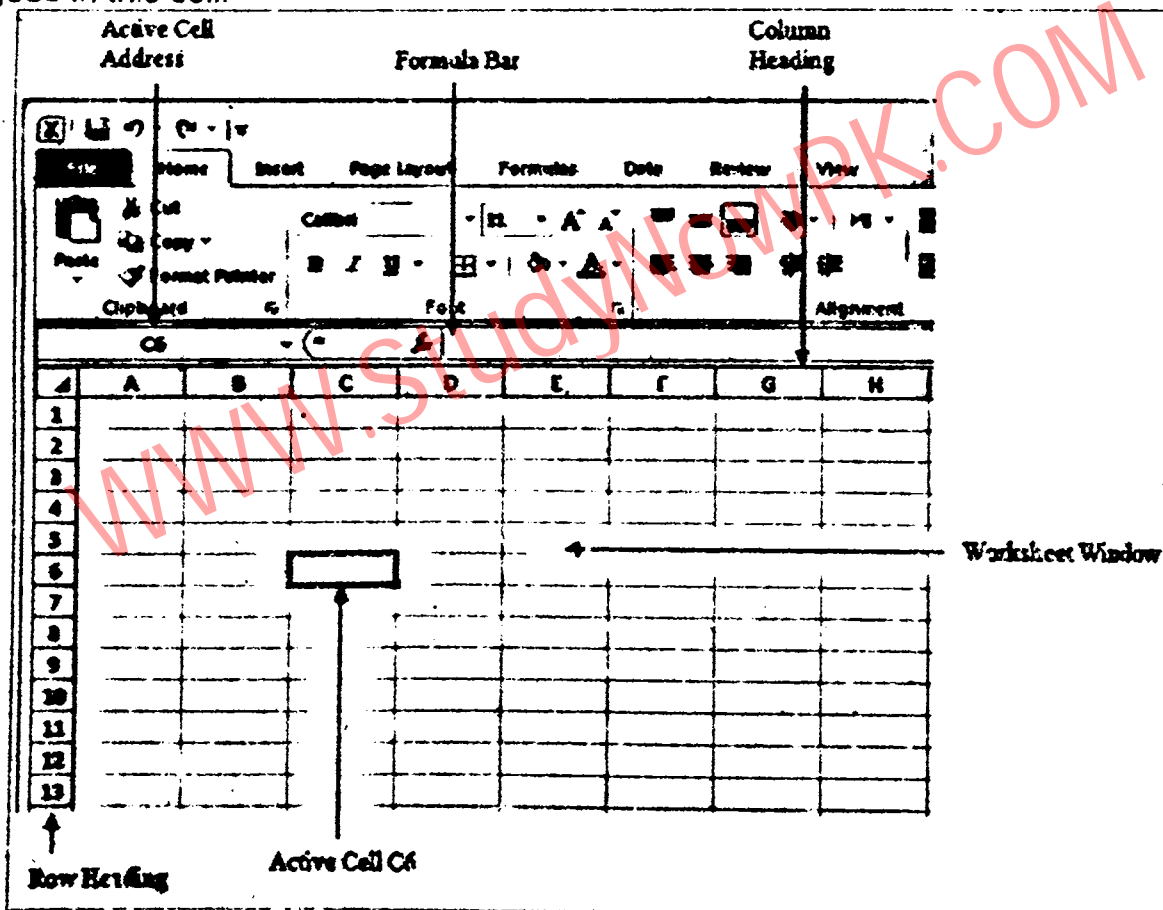
Ans: Cells:

The boxes formed by the intersection of individual rows and columns are known as cells.

Cell's address:

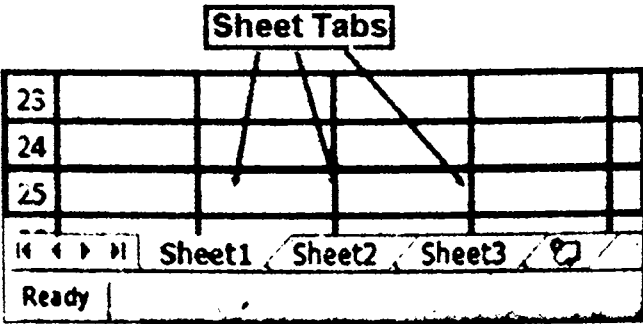
Cells are identified by the combination of their column letter and row number. For example, the sixth cell in the third column is known as cell C6. This is known as cell's address.

Active cell or current cell:

At any moment user is positioned in a single cell known as active cell or current cell. Active cell has dark border as shown in Fig. When the user enters data, it goes in this cell.

Opening screen of Microsoft Excel

Q.46 Write the significance of Excel Workbook.

Ans: Excel Workbook:

When user starts Excel, it creates a new blank workbook, called Book1. A workbook contains sheets, each of which is called a worksheet. Excel opens a workbook with three worksheets as shown in Fig.

Sheets of Excel workbook

Do you Know?

Tip: You can rename a worksheet. For this, right click the sheet tab of the worksheet that you want to rename, select Rename in the shortcut menu, type a name and press Enter.

Q.47 Write the size of spreadsheet.

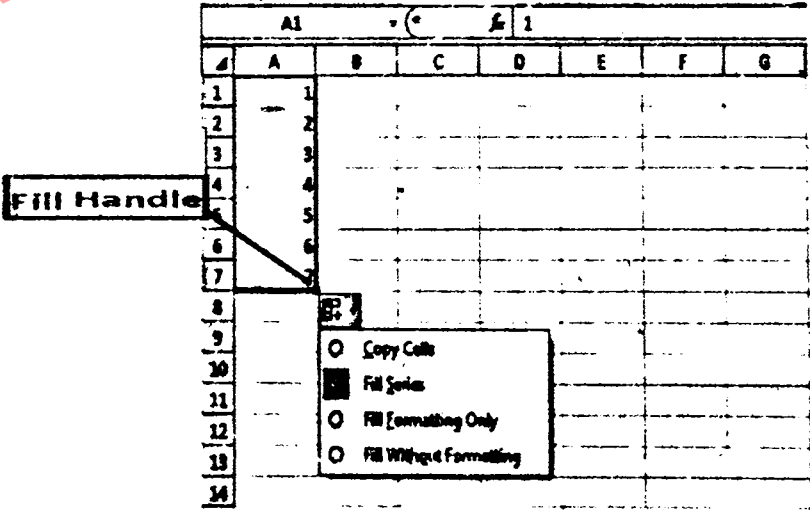
Ans: Size of Spreadsheet:

Each worksheet in a workbook has **16,384 columns** and **1,048,576 rows**. Work area is like a movable window. The user can move the window sideways to view additional columns as well as up and down to view additional rows.

Q.48 Write the steps to fill a series of numbers from 1 to 7 in a spreadsheet.

Ans: Filling Columns and Rows:

The following are the steps to fill a series of numbers from 1 to 7.

1. Enter 1 in cell A1 and 2 in cell A2 below it.
2. Select the two cells, position the mouse pointer on the fill handle at the bottom right corner and drag it downwards through A7.
3. The cells will be filled with series from 1 to 7.
4. You can open the drop-down menu at the bottom right corner as shown in Fig, and select another option.

Filling a series in cells in rows

Cells are filled with odd numbers in Fig, by entering 15 in cell A3 and 17 in cell B3 and then dragging the fill handle to cell F3.

A3 | 15

	A	B	C	D	E	F	G	H	I
1									
2									
3	15	17	19	21	23	25			

- Copy Cells
- Fill Series
- Fill Formatting Only
- Fill Without Formatting

Filling cells with odd numbers in columns

Q.49 Explain the graphical representation of data in a spreadsheet.

Ans: Graphical Representation of Data:

A chart is used to represent data graphically. Charts are very helpful in explanation and representation of data. A commonly used chart is the column chart. Therefore, creation of this chart will be described for the worksheet shown in Fig.

	A	B	C	D	E	F	G
1	MARGALLA COMPUTER SYSTEMS						
2	Half Yearly Sale of Laptop Computers						
3							
4	Brand	Jan	Feb	Mar	Apr	May	Jun
5	Acer	14	22	27	23	9	20
6	Toshiba	23	28	25	31	26	40
7	Dell	52	58	70	58	65	69
8	HP	41	37	55	45	38	51

Half yearly sale of laptop computers

Q.50 Explain the graphical representation of data in a spreadsheet.

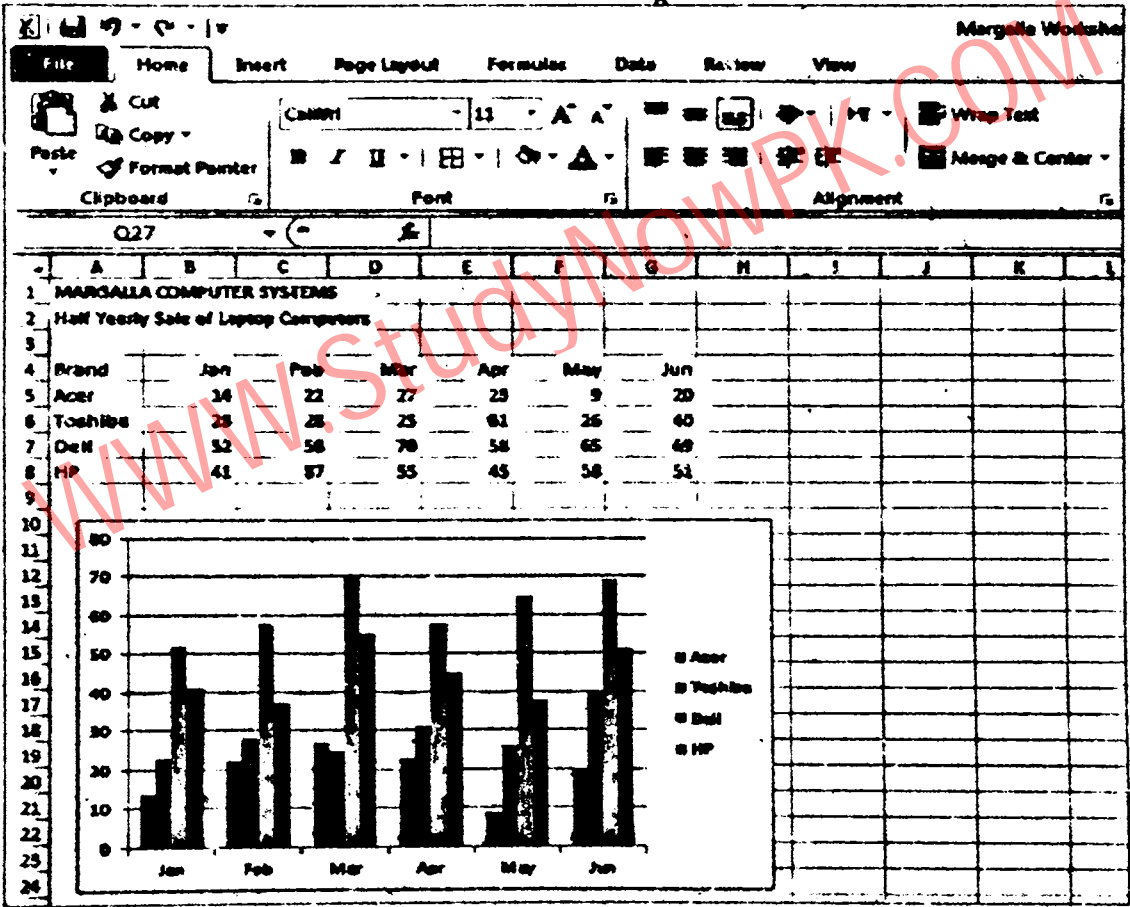
Ans: Creating a Column Chart:

The following are the steps for creating a column chart.

1. Select the cell range (source data) as shown in Fig, that you want to represent in the column chart.

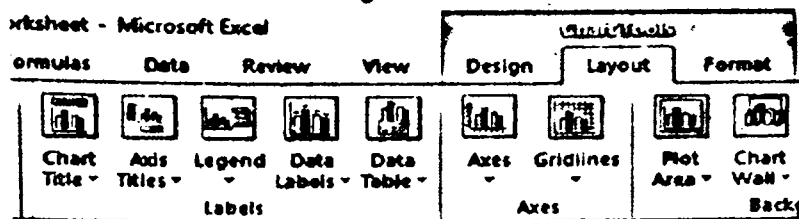
	A	B	C	D	E	F	G
1	MARGALLA COMPUTER SYSTEMS						
2	Half Yearly Sale of Laptop Computers						
3							
4	Brand	Jan	Feb	Mar	Apr	May	Jun
5	Acer	14	22	27	23	9	20
6	Toshiba	23	28	25	31	26	40
7	Dell	52	58	70	58	65	69
8	HP	41	37	55	45	38	51
9							

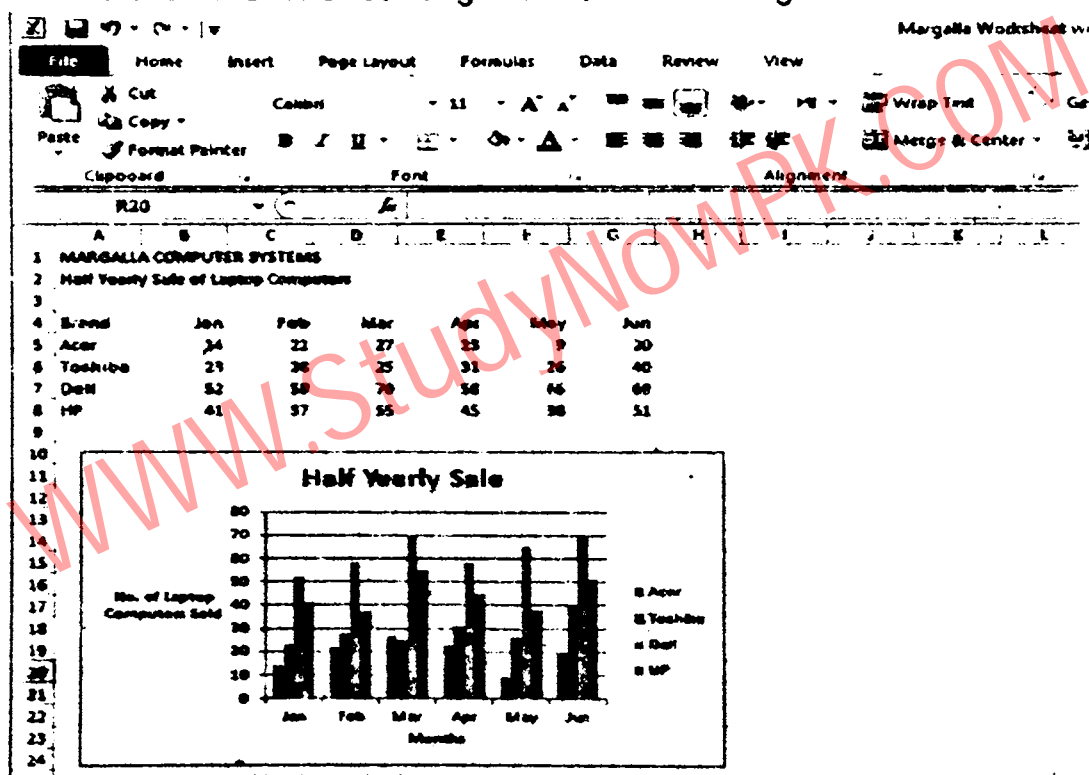
Selected cell range for column chart

2. Click **Insert** tab.
3. In the **Charts** group, open the drop-down menu of **Column** command.
4. Select a chart from the menu. For example, the chart on the top left corner of menu. The chart shown in Fig, will appear on the screen.

Column chart

Q.51 Explain the steps to give titles to the chart and horizontal and vertical axis to make it more meaningful.

Ans: Following are the steps to give titles to the chart and horizontal and vertical axis to make it more meaningful.

1. Click anywhere in the chart to make the **Chart Tool** tabs appear in the **Ribbon**.
2. Click **Layout** tab as shown in Fig.

Layout tab of Chart Tools

3. Click **Chart Title** in **Labels** group and select **Above Chart**.
4. Type the chart title in the text box.
5. Click the **Axis Titles** command, select **Primary Horizontal Axis Title** and select **Title Below Axis**.
6. Type the horizontal axis title in the text box. In the same way give a title to the vertical axis. The resulting chart is shown in Fig.

Column chart after labelling

Tip

To select a predefined chart style, click the chart that you want to format. This will display **Chart Tools**. On the **Design** tab, in the Chart Style group, select the chart style.

Tip

To only print the chart in a worksheet, click anywhere in the chart and give the print command.

Q.52 Elaborate the Filtering of Data in Microsoft Excel.

Ans: Filtering Data:

Filtering data means displaying only the information that the user needs based on a condition. For example, user could filter a list of students for viewing who belong to a particular class. User could also filter a list of people whose ages are above 30.

Q.53 Write the steps to filter a list of students who belong to class IX.B among the different classes by using Microsoft Excel.

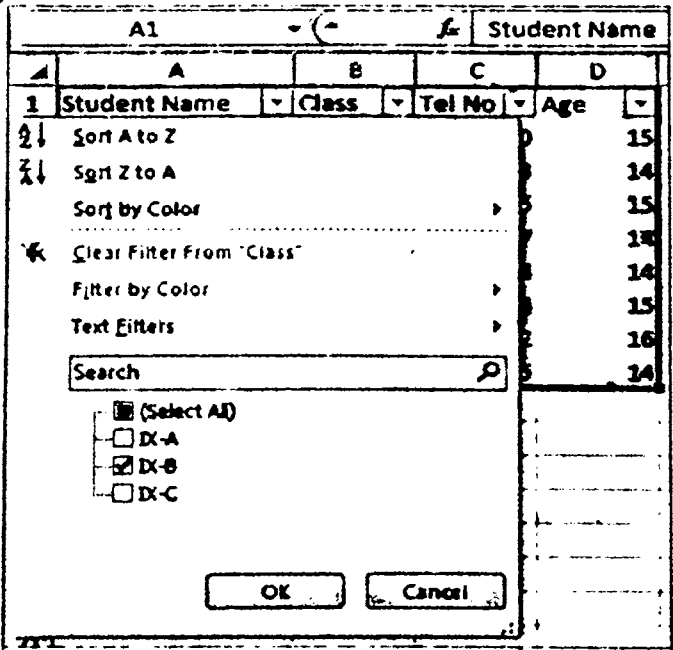
Ans: The following are the steps to filter a list of students who belong to class IX.B.

1. Select the rows you want to filter including the header row as shown in Fig.

A1 | f_x | Student Name

	A	B	C	D	E
1	Student Name	Class	Tel No	Age	
2	Amir Ilyas	IX-A	4578630	15	
3	Fayyaz Khan	IX-C	6788733	14	
4	Muhammad Usman	IX-B	6076545	15	
5	Javed Ali	IX-C	3409877	14	
6	Tahir Mehmood	IX-B	2201874	14	
7	Rehan Alvi	IX-A	7899034	15	
8	Khalid Sohail	IX-B	8007442	16	
9	Bilal Saeed	IX-B	7841455	14	
10					

Data selected for filtering

2. Select the Data tab on the **Ribbon**.
3. Click the **Filter** command in the **Sort and Filter** group.
4. Drop-down arrows will appear in the header of each column.
5. Click the drop-down arrow for class column. The filter menu will appear as shown in Fig.

Selecting filter condition

6. Uncheck the boxes next to (Select All), IX.A and IX.C.
7. Check the box next to IX.B.
8. Click **OK**. Only the information of students who belong to class IX.B will be displayed. The other data will be temporarily hidden.

Steps to clear the filter:

The following are the steps to clear the filter.

1. Click the drop-down arrow in the Class column.
2. Click **Clear Filter From** "Class".
3. Click **Filter** Command in the **Ribbon**.

Q.54 Define Data Validation Microsoft Excel.

Ans: Data Validation:

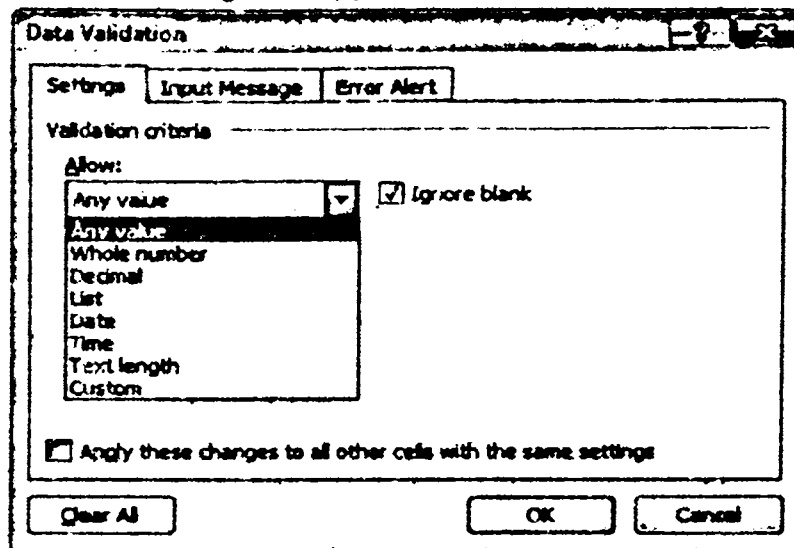
Data validation is used to control the values or the type of data that user enters into a cell.

Q.55 Write the steps that will define criteria for entries in class column of student worksheet to IX.A, IX.B and IX.C by using Data Validation command.

Ans: The following steps will define criteria for entries in class column of student worksheet to IX.A, IX.B and IX.C. If the user enters any other data, an error message will appear.

1. Create a list of valid entries in the worksheet that contains the data IX.A, IX.B and IX.C.
2. Select all the cells in Class columns without the column header.
3. Click the **Data** tab on the **Ribbon** as shown in Fig.

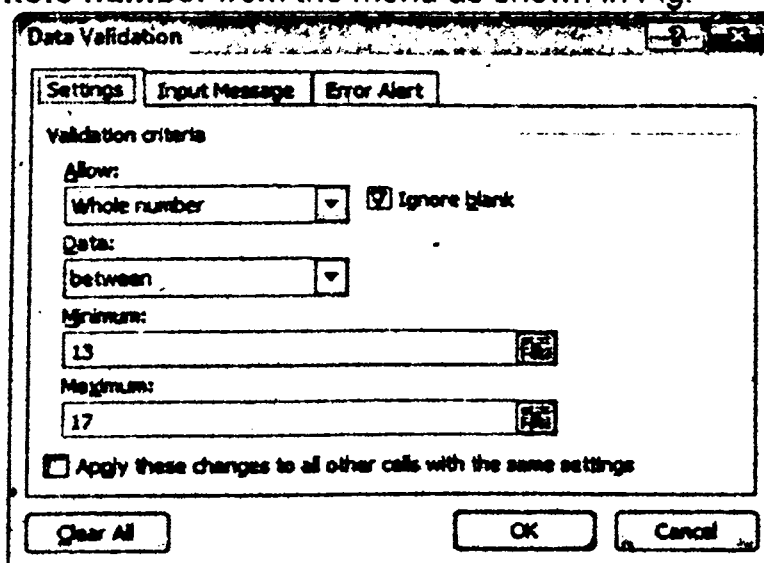
Using Data Validation command

4. Click **Data Validation** command in the **Data Tools** group. **Data Validation** dialog box shown in Fig, will appear.

Data Validation dialog box

5. Click the drop-down arrow below **Allow** heading and select List.
6. Click the button on the right side below **Source**.
7. Select the cell range that contains the list of valid entries and click **Close**.
8. Click **OK** to apply validation.

Q.56 Write the steps to restrict data entries in the age column to ages between 13 to 17 by using data validation command.

Ans: As another example, restrict data entries in the Age column to ages between 13 to 17.

1. Select all the cells in Age column without the column header.
2. Click **Data** tab on the Ribbon.
3. Click **Data Validation** command in the **Data Tools** group. **Data Validation** dialog box will appear.
4. Click the drop-down arrow below **Allow**.
5. Select **Whole number** from the menu as shown in Fig.

Data Validation dialog box

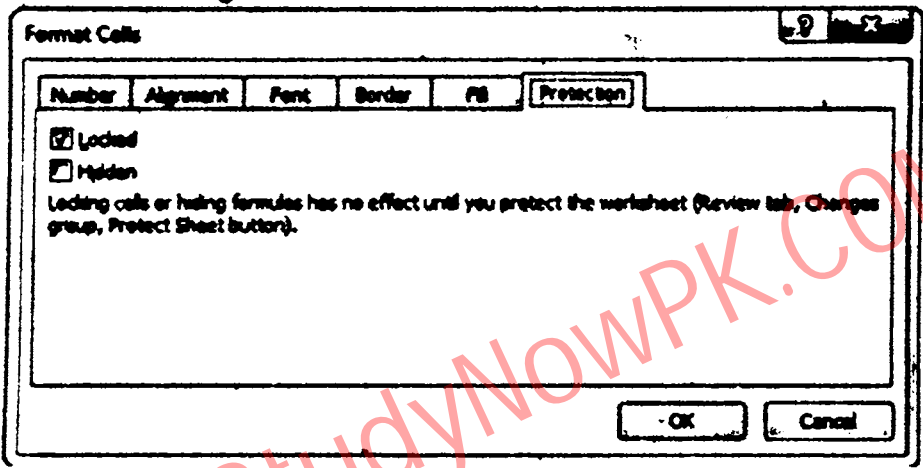
6. Enter 13 for the minimum value and 17 for the maximum value.
7. Click **OK** to apply validation.

Q.57 Write the steps to unlock cells in Microsoft Excel.

Ans: Unlocking Cells:

Generally the user would not like to prevent changes to the entire worksheet. The user may want to allow other users to make changes in worksheet data but prevent changes to titles and formulas. For this, unlock the cells in which data editing is to be allowed.

The following are the steps to unlock cells:

1. If your worksheet is protected, click the **Unprotect Sheet** command in the **Changes** group on the **Review** tab.
2. Select the cells you want to unlock.
3. Press Ctrl+1 to open the **Format Cells** dialog box and click the **Protection** tab as shown in Fig.

Format Cells dialog box

4. Click the **Locked** check box to remove its check mark and click **OK**.
5. Protect the worksheet as explained earlier.

Q.58 Explain the Conditional Formatting in Microsoft Excel.

Ans: Conditional Formatting:

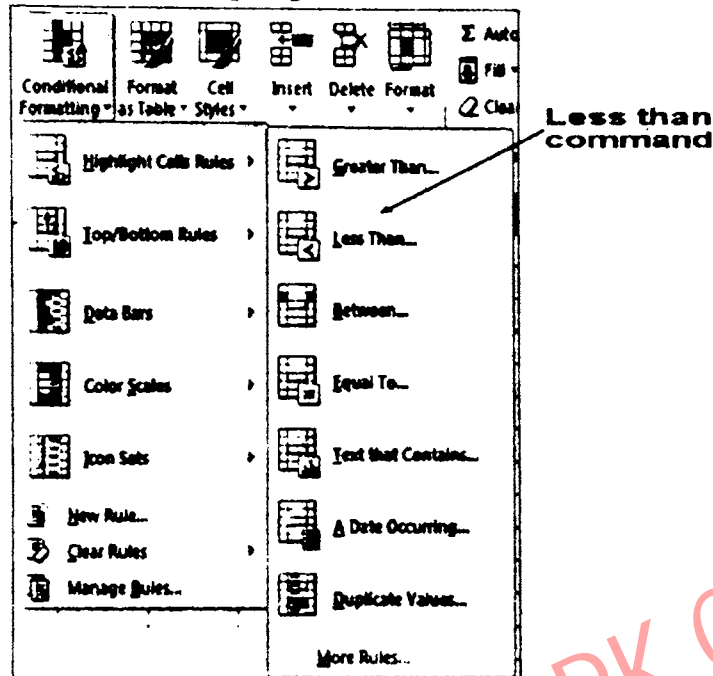
Excel provides commands to apply formatting to one or more cells based on the value of the cell. This is known as conditional formatting.

User can apply one or more rules to cells such as if the value in the cell is less than 33 then color the cell red. The advantage of applying such rules is that the user can easily view which cells have value less than 33.

The following steps will color the text red with light red background in cells that have value less than 33 in the worksheet shown in Fig.

	A	B	C	D	E	F	G	H
1	Student Name	Maths	Comp	Phy	Chem	Eng	Urdu	Isl
2	Afzal Ahmed	42	55	58	48	67	60	47
3	Javed Khan	47	26	38	20	39	48	35
4	Ali Haider	22	30	43	36	51	44	33
5	Waseem Abbas	46	43	36	55	52	63	58
6	Nouman Ali	31	34	12	15	42	45	39

Result sheet of students

1. Select the cells to which you want to apply conditional formatting.
2. Click **Home** tab on the **Ribbon**.
3 Click **Conditional Formatting** command in Styles group to open the drop-down menu and select **Highlight Cells Rules** as shown in Fig.

Conditional Formatting

4. Select **Less Than** in the submenu.
5. Enter 33 and select **Light Red Fill with Dark Red Text** in **Less Than** dialog box to view the failing marks in red color with light red background as shown in Fig.

	A	B	C	D	E	F	G	H
1	Student Name	Maths	Comp	Phy	Chem	Eng	Urdu	Isl
2	Afzal Ahmed	42	55	50	48	67	60	47
3	Javed Khan	47	26	38	28	39	48	35
4	Ali Haider	22	32	43	36	51	44	33
5	Waseem Abbas	46	43	36	55	52	63	58
6	Nouman Ali	31	34	12	15	42	45	39

Worksheet after conditional formatting

6. Click **OK** to apply the formatting.

Q.59 Write the Introduction to Inpage Urdu Editor.

Ans: Introduction to Inpage Urdu Editor:

Inpage is widely used Urdu language editor introduced in 1994. It runs on Windows operating system and it is used for creating documents in Urdu/Arabic languages, etc.

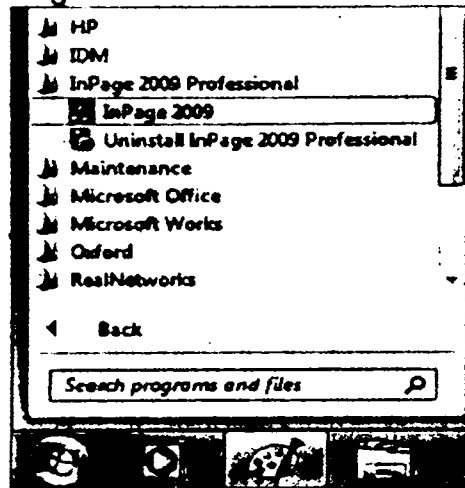
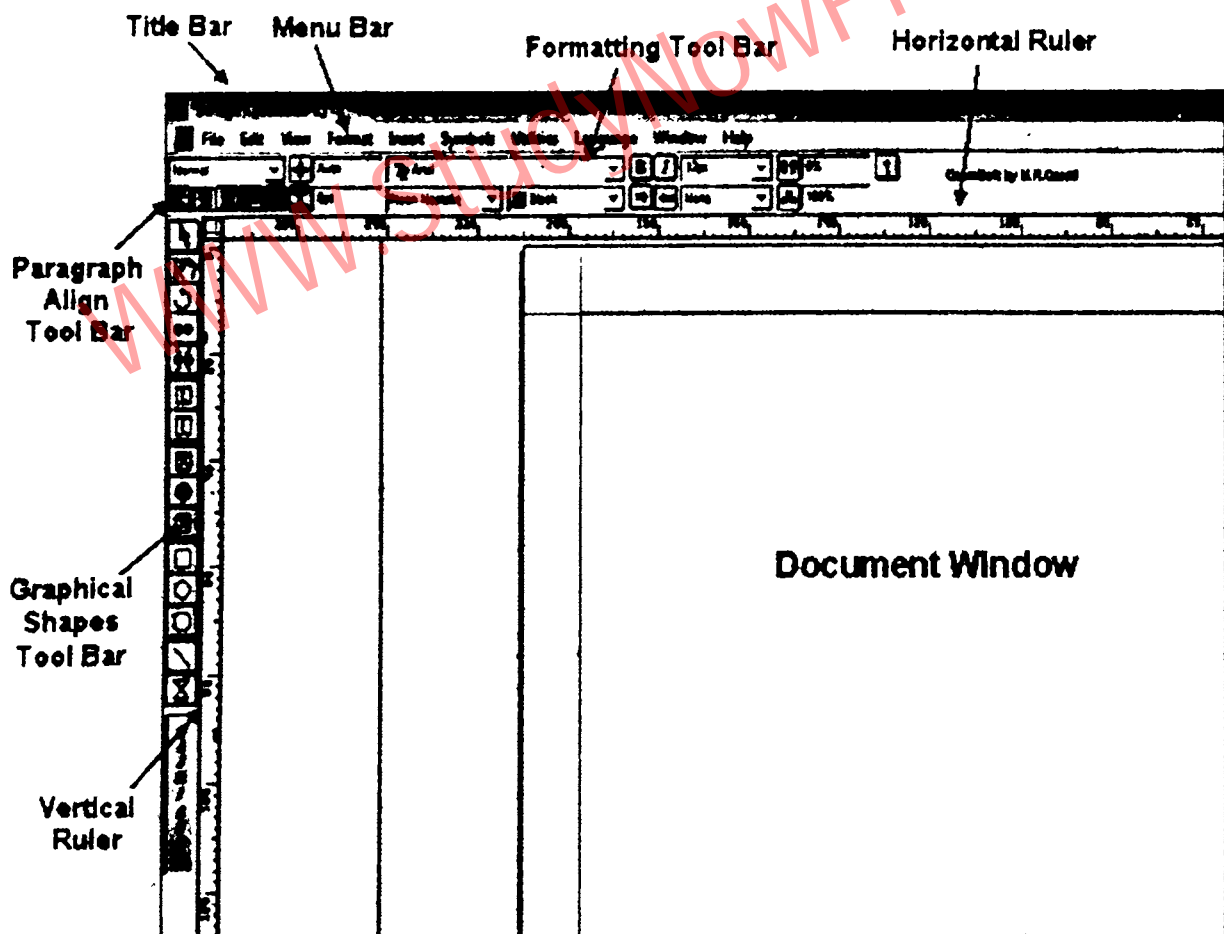
Inpage provides all the standard formatting and editing tools available in word processors used for creating documents in English. It is easy to learn and use.

Inpage allows user to create wide variety of documents such as letters, reports, books, magazines, newspapers and brochures in Urdu. Urdu word processing is now available in MS Word. That option may be used.

Q.60 Write the steps for opening the Inpage program.

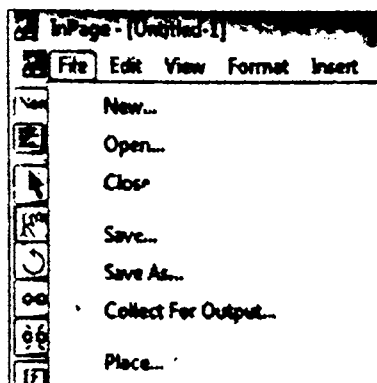
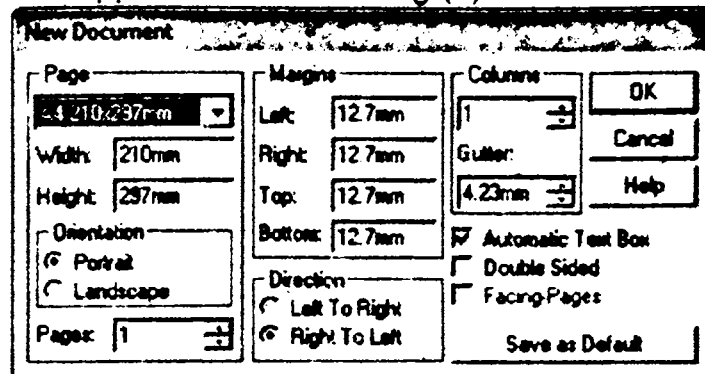
Ans: Opening the Inpage Program:

The following are the steps for opening the Inpage program.

1. Turn on the computer and click **Start** button.
2. Click **All Programs**.
3. Click **Inpage 2009 Professional** to display the submenu.
4. Click **Inpage 2009** as shown in Fig.3-94. The opening screen of **Inpage** will appear as shown in Fig.3-95.

Opening Inpage Program

Opening Screen of Inpage Urdu Editor

Q.61 Write the steps for creating a new document in Inpage.

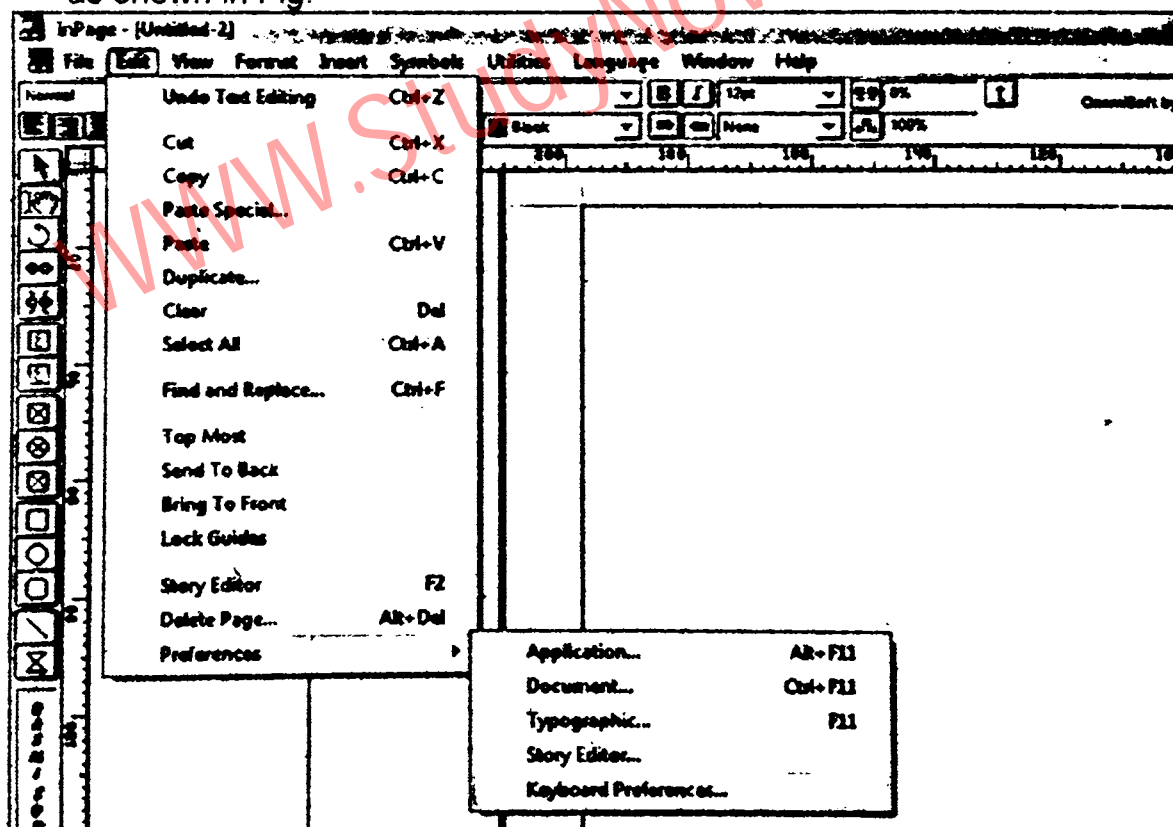
Ans: Creating a New Document in Inpage:

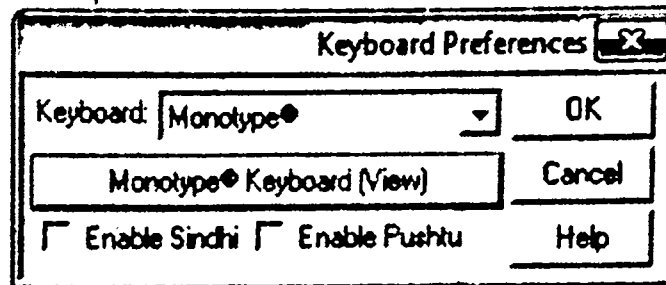
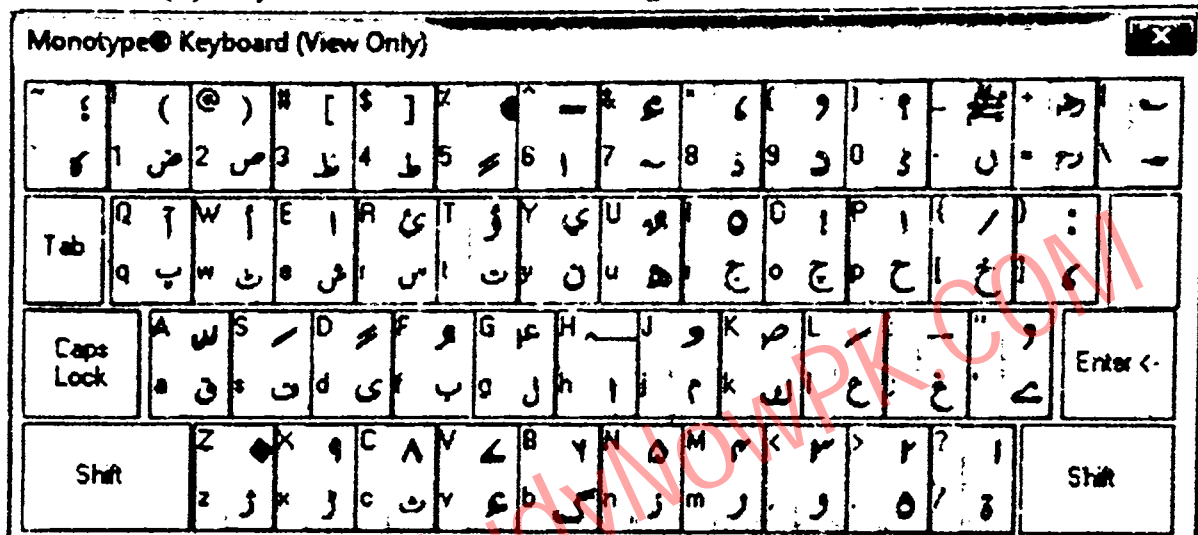
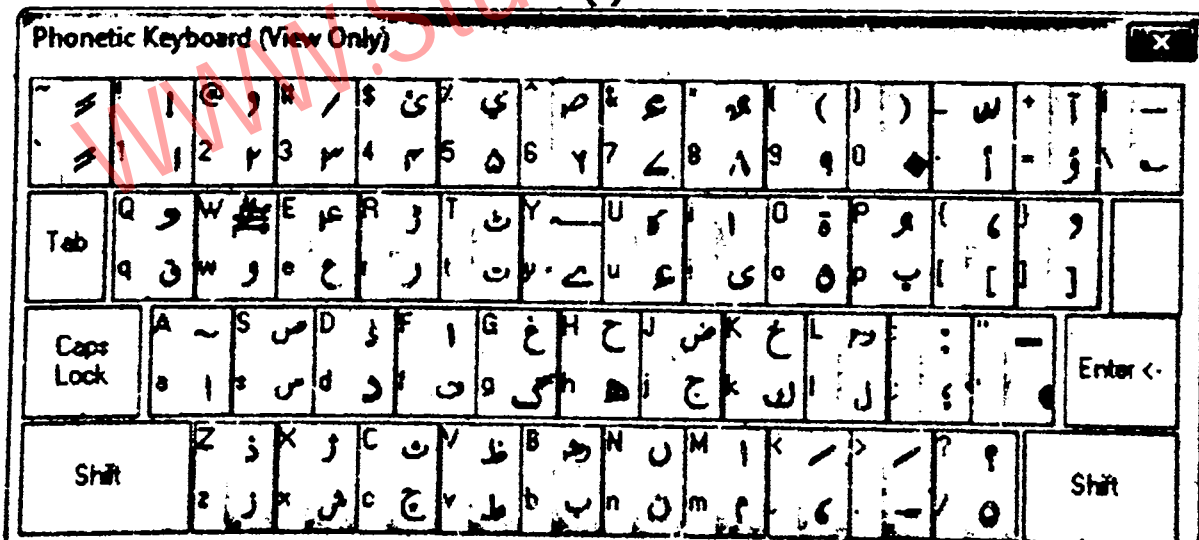
1. Click the **File** tab.
2. Click **New** in the pull-down menu as shown in Fig (a).
3. **New Document** window will appear as shown in Fig (b).

(a) File tab (b) New Document window

4. Set the **Page**, **Margins** and **Columns** setting and click **OK**.
5. Now, type the text in Urdu.

Q.62 Write the steps for Selecting a Keyboard Layout in Inpage.

Ans: Selecting a Keyboard Layout:

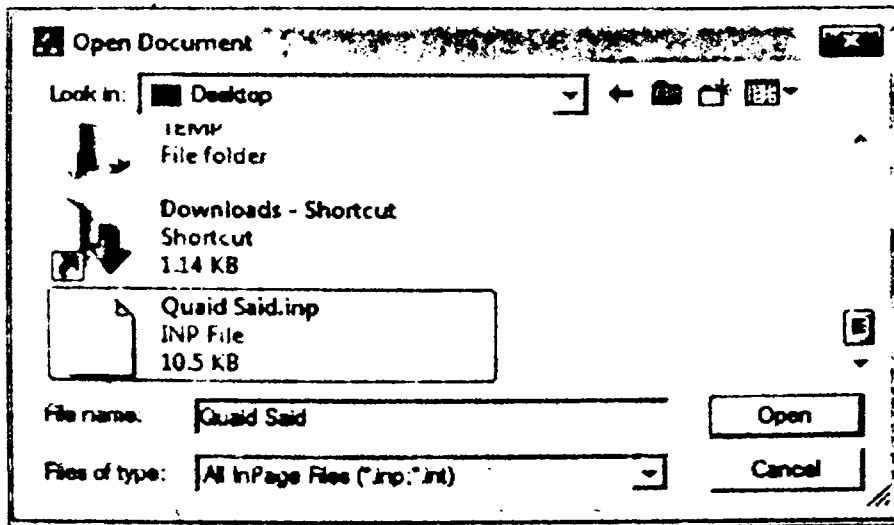
1. Click **Edit** to open the **Edit** pull-down menu.
2. Click **Preferences** to open the submenu and select **Keyboard Preferences** as shown in Fig.

Selecting a keyboard layout

3. Selecta keyboard from the **Keyboard Preferences** window shown in Fig (a), and click **OK**. User can also view the keyboard layout as shown in Fig (b), by clicking the view option.

(a) Keyboard Preference dialog box to select a keyboard

(i)

(ii)

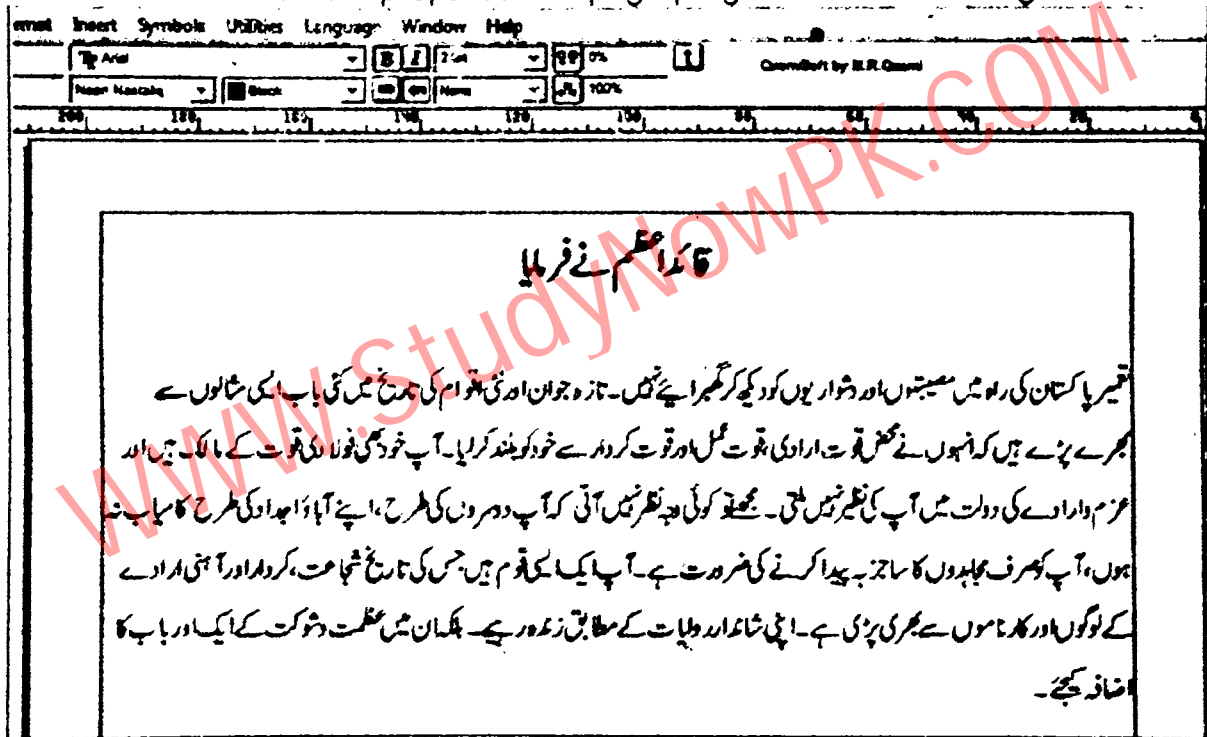
(b) Keyboard layout of (i) Monotype and (ii) Phonetic Keyboard

Q.63 Write the steps for Opening a Document in Inpage.

Ans: Opening a Document:

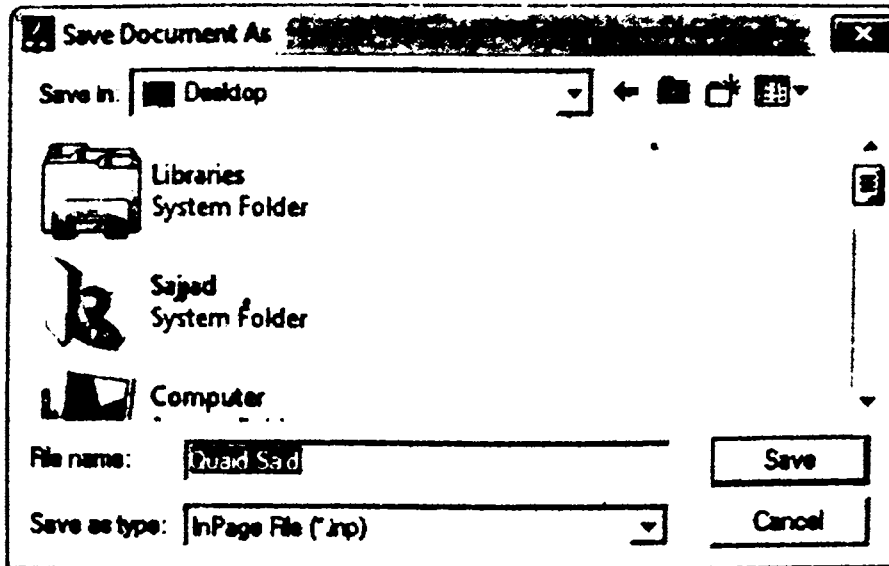
1. Click the **File** tab.
2. Click **Open**. The **Open Document** dialog box shown in Fig. will appear.

Open Document dialog box.

3. Select the document
4. Click **Open**.

An Urdu document prepared in Inpage program is shown in Fig.

Urdu document

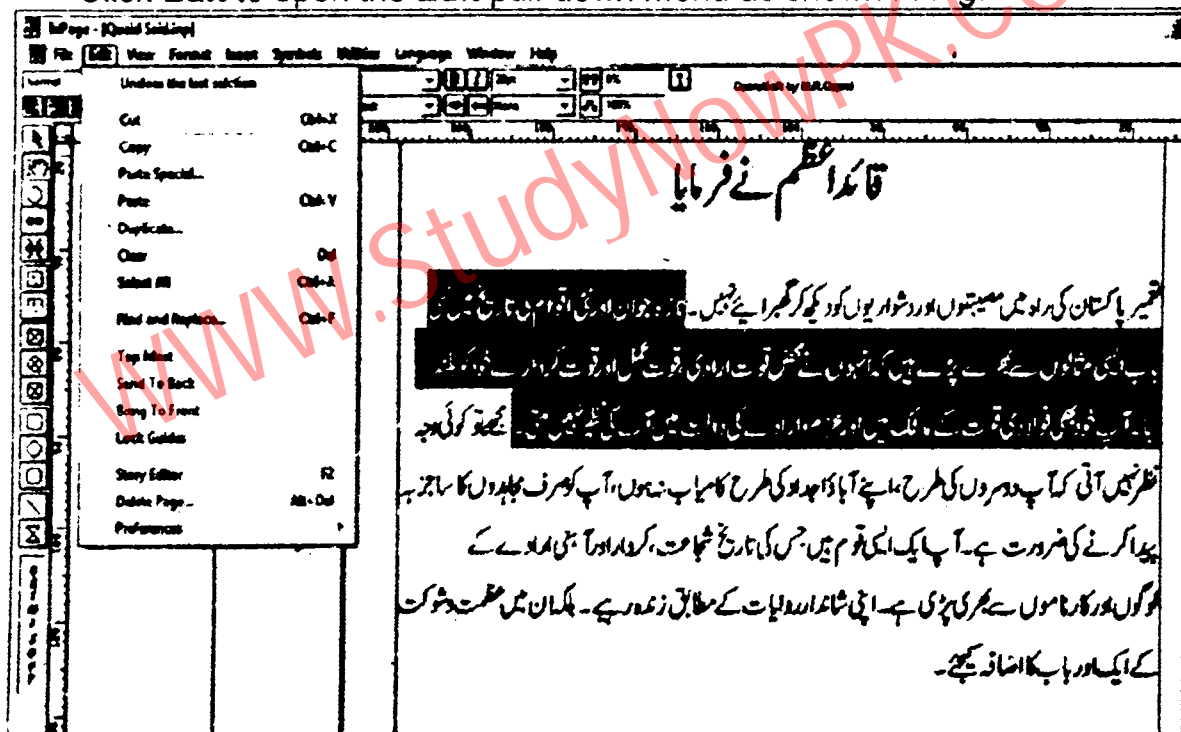
Q.64 Write the steps for Saving a Document in Inpage.

Ans: Saving a Document:

1. Click **File** tab.
2. Select **Save** or **Save as**. **Save Document As** dialog box shown in Fig, will appear.
3. Select the folder where document is to be saved.
4. Give a file name to the document.
5. Click **Save**.

Save Document As dialog box

Q.65 Write the steps for Copying or Moving Text in Inpage.

Ans: Copying or Moving Text:

1. Select the text to copy or move by dragging the mouse pointer. The selected text will be highlighted.
2. Click **Edit** to open the **Edit** pull-down menu as shown in Fig.

Text selected for copying

3. Select **Copy** or **Cut**.
4. Position the mouse pointer at the location where the text is to be copied or moved.
5. Open the **Edit** menu and click **Paste**.

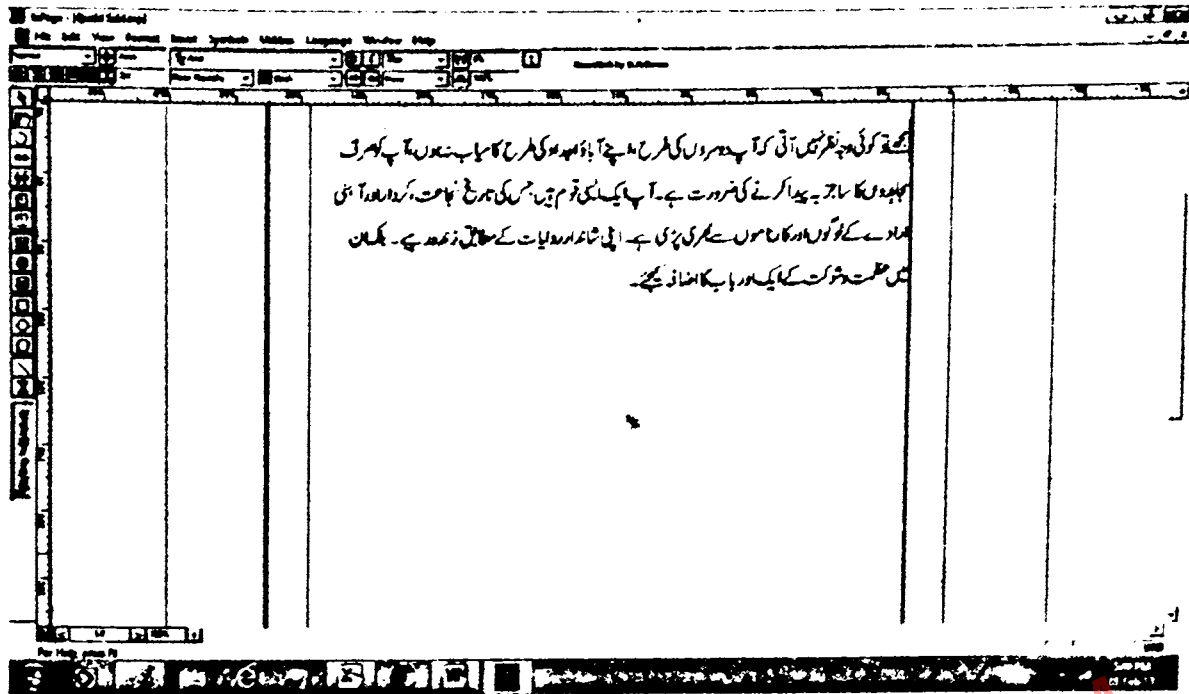
Document after copying the text

Note: The shortcut commands **Ctrl+C, Ctrl+X** and **Ctrl+V** can also be used for Copy, Cut and Paste respectively.

Q.66 Write the steps to delete text in Inpage.

Ans: Deleting Text:

To delete text, select the text as shown in Fig, by dragging the mouse pointer and then press the **Delete** key.

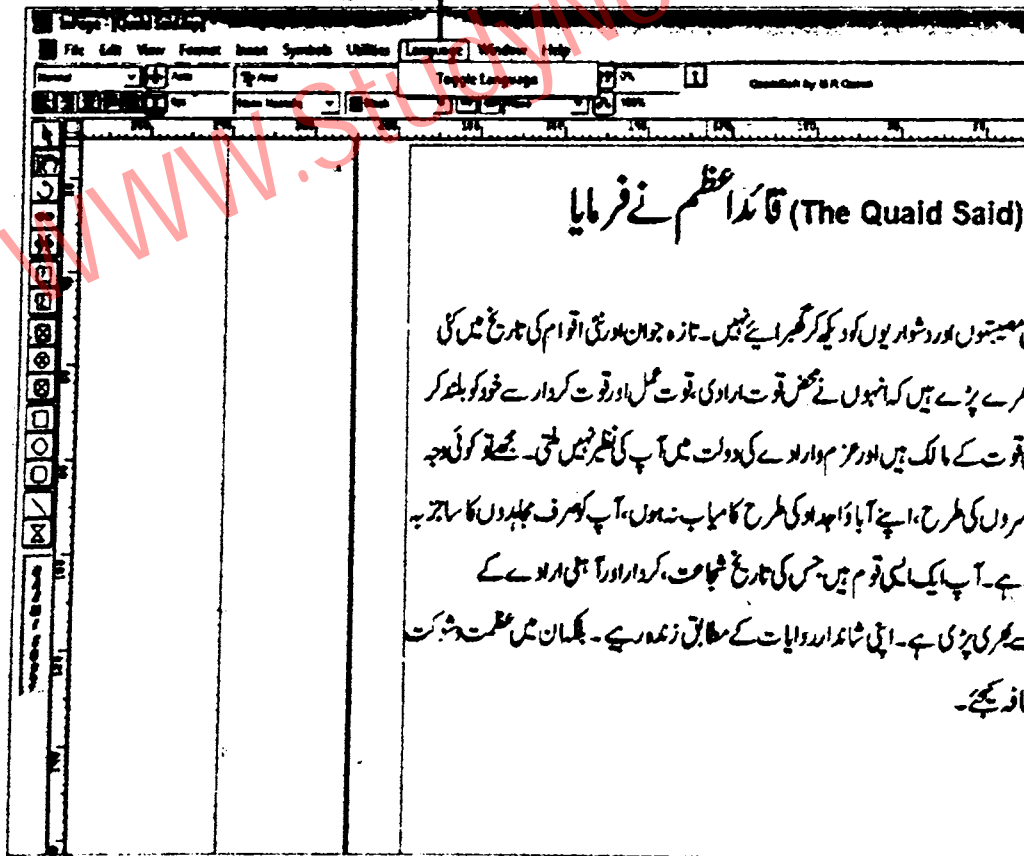
Text selected for deletion

Document after deleting the text

Q.67 Write the steps for Changing Language in Inpage.

Ans: Changing Language:

The following are the steps for changing to English language.

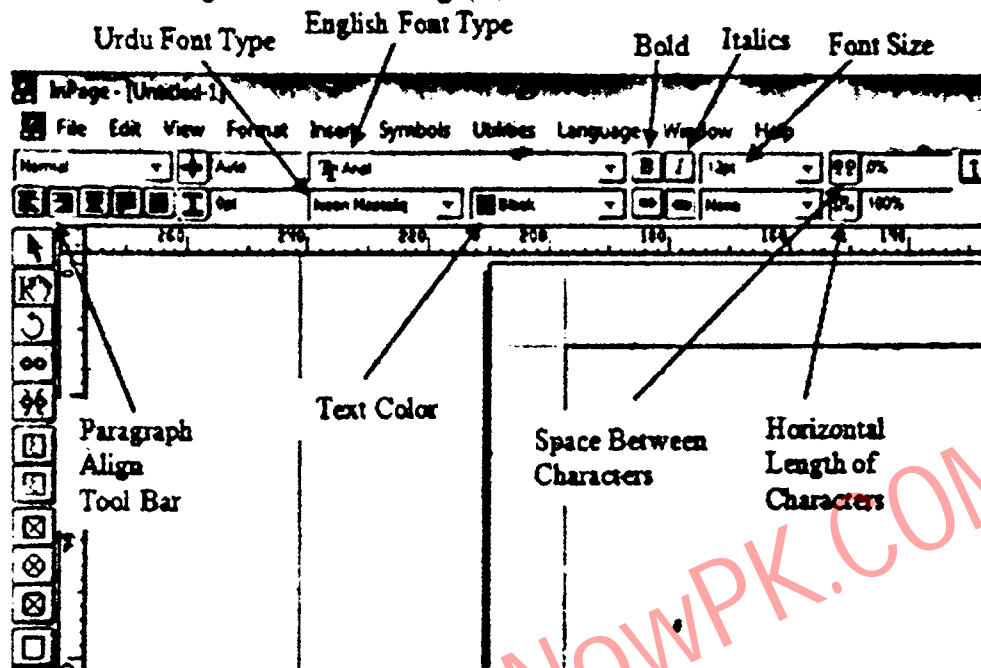
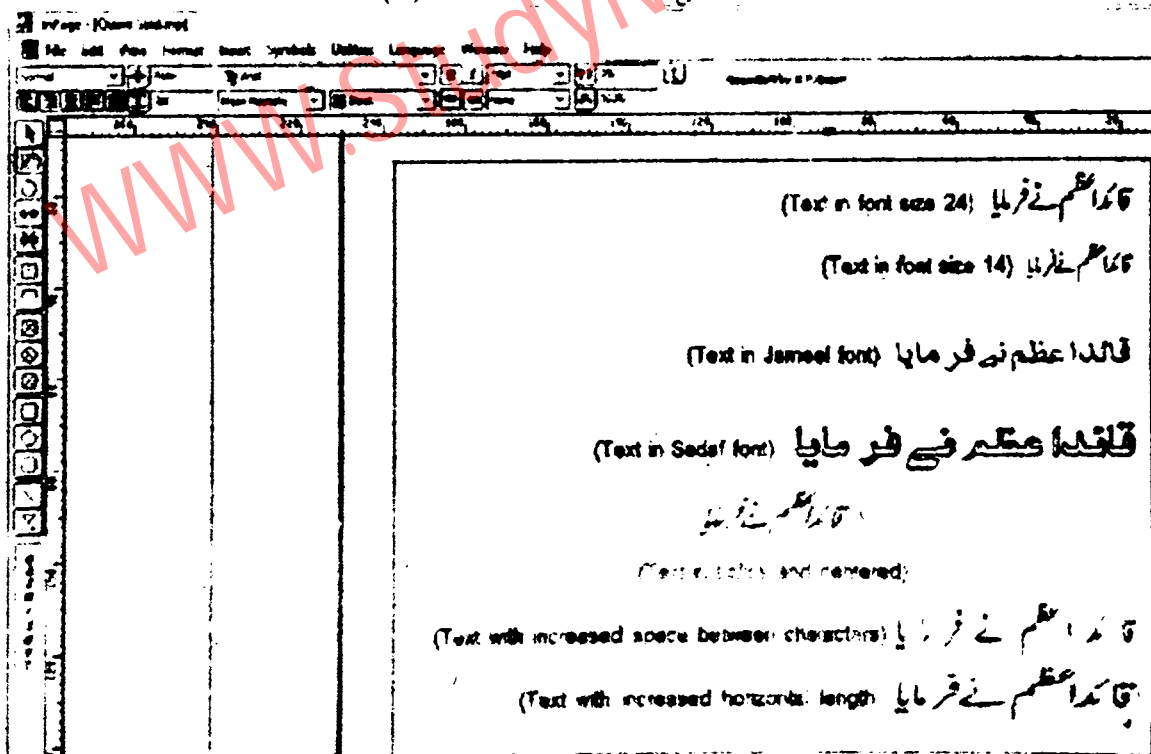
1. Click **Language** in **Menu Bar** as shown in Fig.

Language Menu

Changing language

2. Click **Toggle Language.**
3. Perform the same steps to return back to Urdu typing.

Q.68 Explain formatting text commands in Inpage.

Ans: Formatting Text:

Select the text and apply the appropriate commands given in Fig (a). Text with different formatting is shown in Fig (b)

(a) Text Formatting Tools

(b) Formatted text

KEY POINTS

- Word processing refers to the use of computer to create, edit, format and print documents.
- A word processor is computer application software that is used for the creation of documents on computer.
- Ribbon is located below the title bar of Word window and it consists of tabs, groups and commands. It provides access to commands that are needed while working on a document.
- Page break is a marker that tells Word program that the contents which follow are to appear on a new page.
- Section break inserts a new page but it allows the user to change the page format without having any effect on the formatting of the previous pages.
- Header refers to information that appears at the top of a page and footer to information that appears at the bottom of a page.
- WordArt is a text modifying feature in Word to create decorative effects such as shadow, colors, 3D effects, changing shape of text, etc.
- Hyperlink is text in a Web page or document that links to another Web page or another place in the same document when user clicks on it.
- Spreadsheet is a grid of rows and columns in which user enters numbers and text.
- A workbook consists of sheets, each of which is called a worksheet. Excel opens workbook with three sheets but user can add additional worksheets if required.
- Relative cell address means when a formula is copied to other cells in Excel, the cell references in the formula change to reflect the formula's new location.
- Absolute cell addressing keeps a cell reference constant when copying a formula or function.
- A chart is a used to represent data graphically. It helps in explanation and communication of the meaning of data in a worksheet.
- Filtering data means displaying only the information that is needed based on a condition.
- Data validation is used to control the values or the type of data that user enters into a cell.
- Conditional formatting means applying a particular format to one or more cells based on the value of the cell.

EXERCISE

Q1. Select the best answer for the following MCQs.

i. Which of the following software is used for creating professional documents?

A Spreadsheet Software B Word processor
C Typing Tutor D Both A and B

ii. Which of the following tab of Word Ribbon contains Clipboard group?

A. Page Layout B Insert
C. File D Home

iii. By default how many tabs are there in Word Ribbon?

A. 7 B 8 C. 9 D 10

iv. What is used for creating decorative effects in Word?

A. Paragraph formatting B. Text formatting
C. Page formatting D. WordArt

v. Which of the following tab contains the commands for creating charts in Excel?

A. Home B. Formulas
C. Insert D. Data

vi. Which of the following command in Excel allows the user to view only certain data in a worksheet based on a condition?

A. Data validation B. Data filtering
C Conditional formatting D Data manipulation

vii. Which of the following command in Excel restricts user from entering wrong data in cells of a worksheet?

A Data validation B. Data Filtering
C. Conditional formatting D. Data manipulation

viii. Which of the following command is used to apply formatting to one or more cells based on the value of the cell?

A Data validation B Data filtering
C Conditional formatting D. Data manipulation

ix. Which of the following shortcut keys are used for pasting selected text?

A Ctrl+C B Ctrl+X
C Ctrl+V D Ctrl+P

x. Which of the following command is used in Word to select the entire document?

A Double-click B Triple click
C Ctrl+Single click D Shift+Single click

Answers

i. B	ii. D	iii. C	iv. D	v. C
vi. B	vii. A	viii. C	ix. C	x. B

Q2. Write short answers of the following questions.

i. What is a word processor? Write some advantages of it over a typewriter.

Ans: Word Processing:

Word processing refers to the use of computer to create edit format and print documents

Word Processor:

Word processor is computer application software that is used for the creation of different types of documents on computer

Word processor is a commonly used application of computer Word processor allows user to delete, modify and rearrange document without retyping any of the existing text

Microsoft Word:

A common word processing program used is Microsoft Word. It is a part of Microsoft Office software. Microsoft Office contains word processing, record-keeping spreadsheet and presentation software

Advantages of using a word processing program over a Typewriter:

- **i.** We can delete mistakes
- **ii.** Spell-check
- **iii.** Different fonts.
- **iv** Different sizes
- **v.** Different color
- **vi.** Pictures
- **vii.** We can save
- **viii.** We can email it
- **ix.** We don't have to move something to start line

All these things cannot be done on a typewriter

Word processing system has the advantage of reducing time required to prepare documents It provides features to create appealing professional documents. With word processing programs user can create many types of documents such as letters, reports resumes, newsletters, memos, flyers, etc

ii. Name any three types of documents which can be prepares in Word.

Ans: With word processing programs, user can create many types of documents such as letters, reports, resumes, newsletters, memos, flyers, etc

iii. Differentiate between page break and section break.

Ans: Page Breaks:

A page break is a marker that tells Word program that the contents which follow are to appear on a new page. Word automatically inserts a page break when the user reaches the end of a page Page break is inserted in document when user wants to add a new page to the document

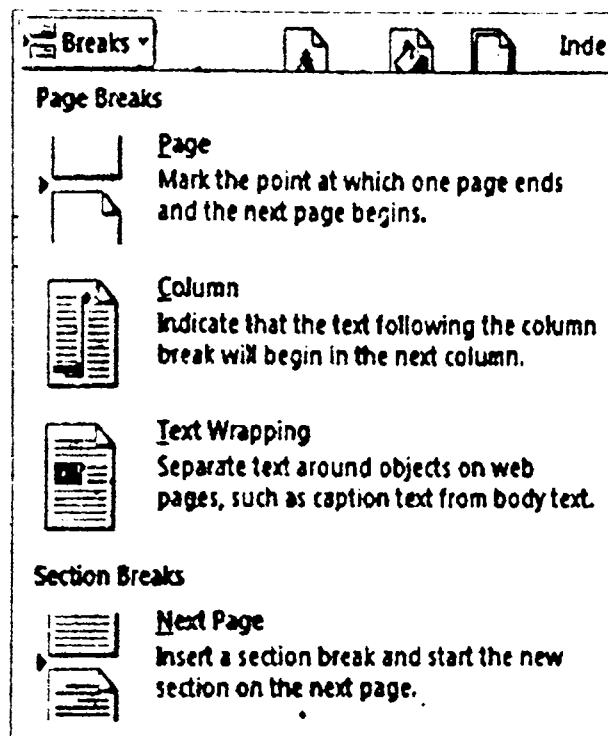
Section Breaks:

A section break also inserts a new page but it allows the user to change the page format without having any effect on the formatting of the previous pages

For example section break can be used to break a document into sections having different header and footer for each chapter of a book

Steps for inserting page break and section break:

The following are the steps for inserting page break and section break.

1. Click the **Page Layout** tab
2. Click the **Breaks** icon to open the drop-down menu shown in Fig.

Breaks drop – down menu

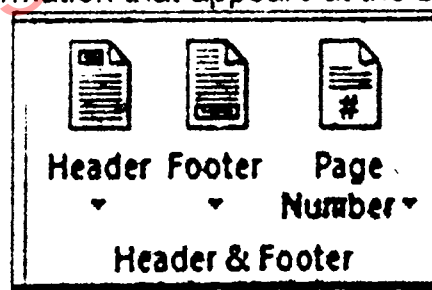
3. To insert a page break click the first option under the **Page Breaks** heading and to insert a section break click the first option under the **Section Breaks** heading.

iv. Why header and footer are important in a Word document?

Ans: Header:

Header refers to information that appears at the top of a page

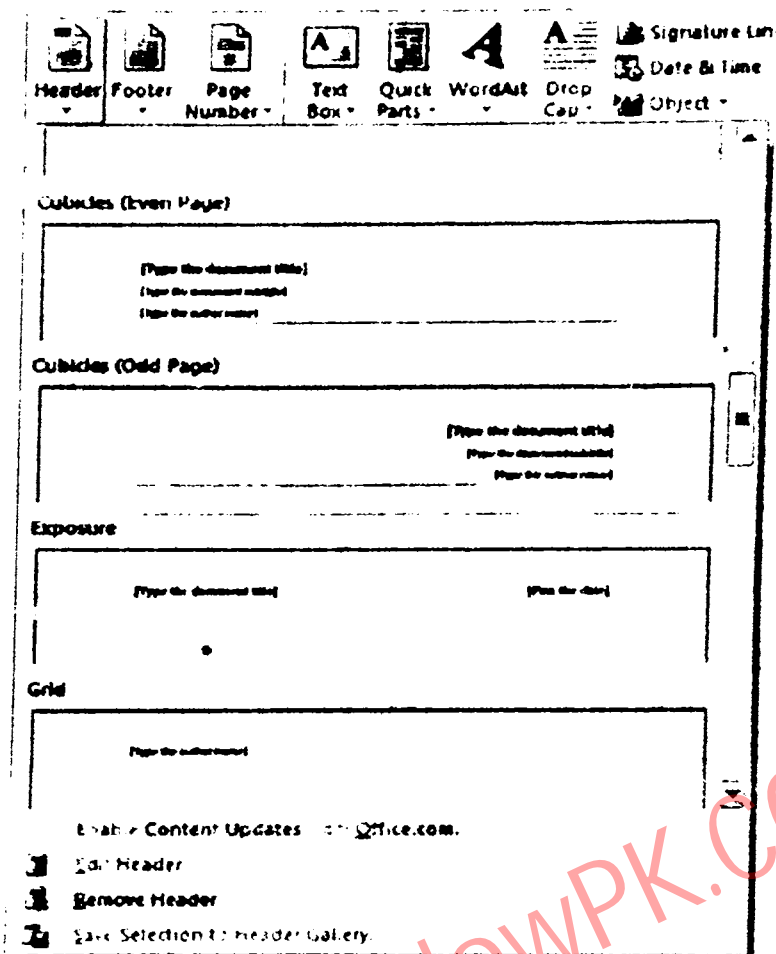
Footer:

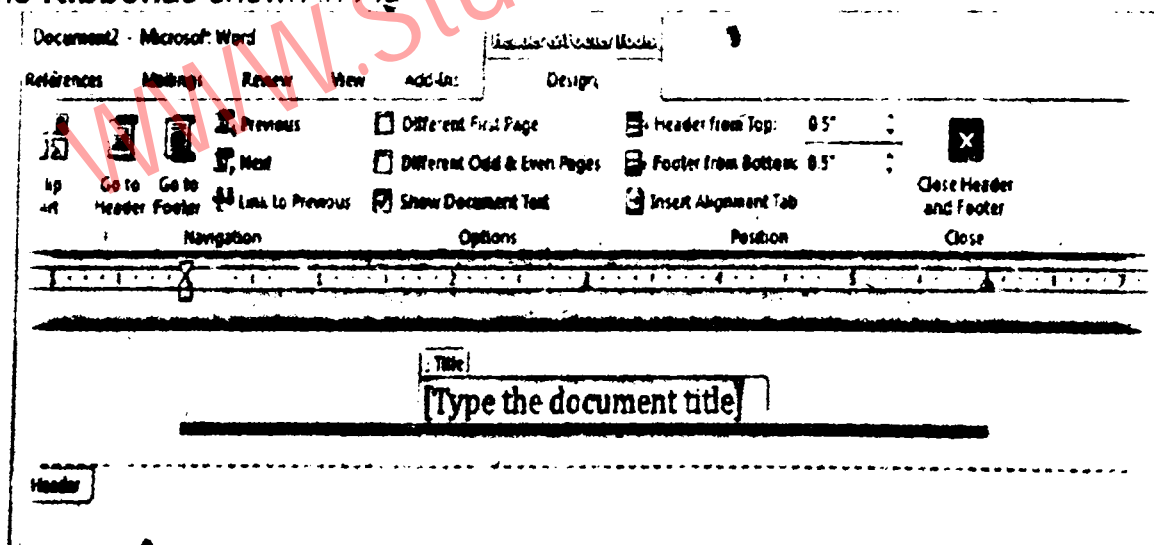
Footer refers to information that appears at the bottom of a page.

Importance of header and footer:

The type of information that may appear in the header or footer includes book title, document title, chapter number and title, page number, company name, etc.

Steps for inserting header or footer:

The following are the steps for inserting header or footer.

1. Click the **Insert** tab
2. Click the **Header** or **Footer** in the **Header & Footer** group shown above to open the drop-down menu.
3. Select a predesigned header or footer from the drop-down menu shown in Fig.

Inserting a header

Header or footer will appear in the document and the **Design** tab will appear in the **Ribbon**as shown in Fig

Entering information in header

4. Type the information in the header or footer

5. After entering the information, click **Close Header and Footer** in the **Design** tab

To edit the information in the header or footer Double-click anywhere on the header or footer and make the changes

v. What is the purpose of control buttons in Word window?

Ans: Control Buttons:

Every window has a set of three control buttons that appear in a row on the right side of the title bar. These are the **Minimize, Maximize/Restore and close buttons**. If you point at one of these buttons, a **control menu** appears telling you the action that can be taken on clicking it.

Minimize button:

You can minimize a window from the view by clicking the **Minimize** button when currently it is not required but must remain running.

Maximize button:

You can **Maximize** window by clicking the maximize button that enlarges the window to fill the entire screen.

Restore button:

When a Window is maximized, a **Restore** button appears in its place. With the **Restore** button you can return the Window to its original size.

Close button:

A window has an associated button having its name with an icon on the taskbar. You can close a window by clicking the Close button.

vi. Why hyperlinks are created in Word document?

Ans: You can add hyperlinks to your document that give your readers instant access to information in another part of the same document.

The hyperlink can be text or graphics. By using hyperlinks, you can provide information to your readers without repeating the same information on different pages.

To add links that jump from one part of a document to another part of the same document, mark the destination and then add a link to it.

OR (Second Answer)

A hyperlink is basically a location address inserted into a document that links to another object or location. An object can be a Word file, an HTML web page, an image, sound file, video or other digital file.

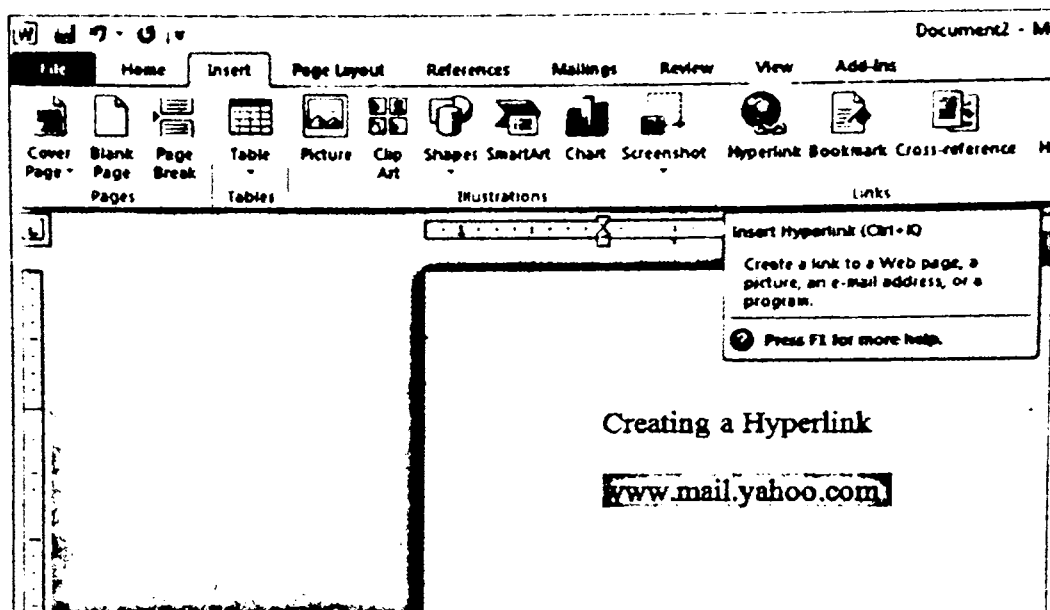
The address can also link to a location within the original document, allowing the reader to jump to different sections of the document.

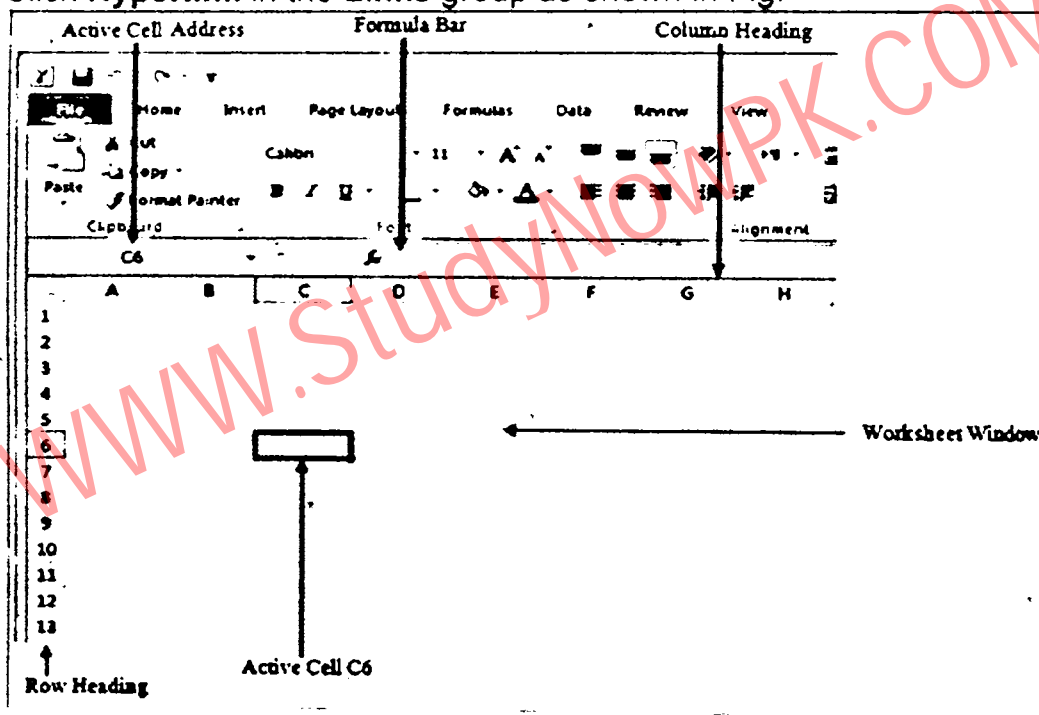
Hyperlinks are clickable and take a user to the target location or object.

Using Hyperlink:

Hyperlink is text in a Web page or document that links to another Web page or another place in the same document when the user clicks on it.

The following are the steps to create a Hyperlink.

1. Select the text that is to be displayed as Hyperlink as shown in Fig.

Inserting a Hyperlink

2. Click the **Insert** tab.
3. Click **Hyperlink** in the **Links** group as shown in Fig.

Opening screen of Microsoft Excel

4. Click **OK**.

There is also an easy way to create a Hyperlink to Web page. Type the Hyperlink text and press Spacebar or Enter key.

Hyperlink appears in blue color and underlined. To open the Web page, position the mouse pointer over the Hyperlink and press the Ctrl key while clicking the mouse button.

The text format of Hyperlink can be formatted to regular text, that is, it should not be in blue color or underlined. To remove the text format of Hyperlink, Right-click the Hyperlink and select **Remove Hyperlink** from the shortcut menu.

vii. Name any three areas of application of Excel.

Ans: Excel allows us to perform calculations (like a calculator) and manipulate text (like a word processor).

1) Pivot Tables:

PivotTables summarise large amounts of Excel data from a database that is formatted where the first row contains headings and the other rows contain categories or values.

2) Conditional Formatting:

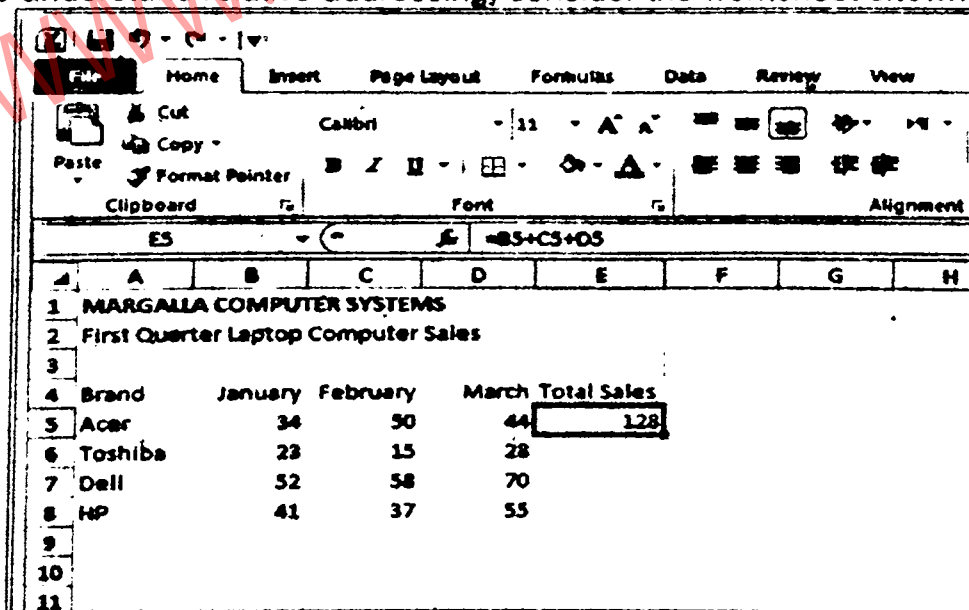
Conditional formatting helps users to quickly focus on important aspects of a spreadsheet or to highlight errors and to identify important patterns in data.

3) Sorting and Filtering:

Sorting and filtering your data will save you time and make your spreadsheet more effective.

4) Basic Math:

We can type the calculation you want to perform directly into the cell or the formula bar and when you press Enter the answer will show in the cell.

5) Mixed Type Charts:

Mixed type or combo (combination) charts combine two styles of charts, such as Excel's column chart and line chart. This format can be helpful for displaying two different types of information or a range of values that varies greatly.

viii. Differentiate between relative and absolute cell addressing in Excel.

Ans: Relative Cell Addressing:

In Excel, cell addresses included in a formula or function are relative cell addresses. Relative cell address means when a formula is copied to other cells, the cell references in the formula change to reflect the formula's new location.

Explanation:

To understand relative addressing, consider the worksheet shown in Fig.

Entering formula in worksheet

- Enter the formula =B5+C5+D5 in cell E5 to calculate the total number of Acer laptop computers sold in the first quarter.

- Copy the formula in cell E6.
- The formula in cell E6 becomes =B6+C6+D6 as shown in Fig.

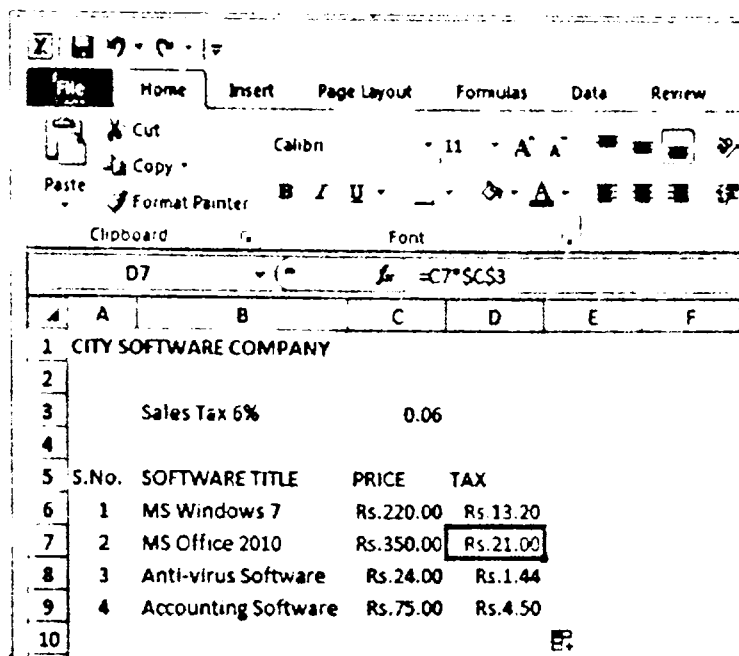
Copying formula to another cell

- The cell references have automatically changed based on the relative position of row and columns because relative cell addressing is used in formula in cell E5.
- Similarly the formula will become =B7+C7+D7 in cell E7 and in cell E8 it will become =B8+C8+D8. This is what is required in this worksheet.

Absolute Cell Addressing:

User can address a particular cell location no matter where the formula appears by using absolute cell address. Absolute cell addressing keeps a cell reference constant when copying a formula or function. Absolute cell addresses begin with a dollar sign in the formula, such as =C5 + D5.

In the worksheet of Fig (a). sales tax is calculated as 6% for software items. Absolute cell addressing is used for the cell C3 in the formula =C6*C3 in cell D6 for calculating sales tax because it should not change when the formula will be copied to cells D7, D8 and D9 as shown in Fig (b).

(a) Using absolute cell addressing in formula

(b) Copying formula that has absolute addressing

ix. What are the advantages of protecting an Excel worksheet?

Ans: Protecting an Excel Worksheet:

Sometimes the data in your worksheets contain important information that you may not want others to edit or delete. Fortunately, you can protect sensitive information in elements down to the cell level in Excel.

When a worksheet is protected, other users can only view the information in it but changes cannot be made.

Steps to protect a worksheet:

The following are the steps to protect a worksheet.

1. Click **Review** tab in the **Ribbon**.
2. Click **Protect Sheet** command in the **Changes** group.
3. Enter a password and click **OK**.
4. Re-enter password to confirm and click **OK**.

x. How graphical representation of spreadsheet data can be helpful in business.

Ans: A chart is used to represent data graphically. Charts are very helpful in explanation and representation of data. A commonly used chart is the column chart.

Excel allows business users to **unlock the potential of their data**, by using formulas across a grid of cells. Data is inserted into individual cells in rows or columns, allowing it to be sorted and filtered, and then displayed in a visual presentation.

Using pie charts, graphs and clustered columns adds meaning to data, which otherwise may just exist as row after row of numbers These visualisations can add extra emphasis to business reports and persuasive marketing material

Q3. Write long answers of the following questions.

i. Which shortcut keys are used in Word to move cursor to the beginning of line, end of line, top of the document and end of the document?

Ans: Shortcut keys for cursor movement are shown in Table.

Shortcut keys for cursor movement

Cursor Movement	Shortcut Key
Beginning of the line	Home
End of line	End
Top of the document	Ctrl + Home
End of document	Ctrl + End

ii. Write the mouse commands used for selecting various items is a Word document such as single word, sentence, paragraph, etc.

Ans:

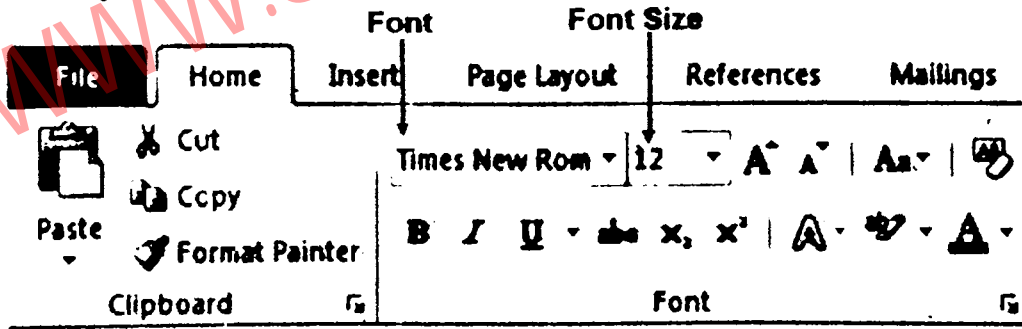
Item to Select	Mouse Command
Single word	Double-click the word
Sentence	Press and hold down Ctrl key and click anywhere in the sentence
Paragraph	Move the mouse pointer to the left of the paragraph until it changes to a right-pointing arrow and then Double-click

iii. Explain text and paragraph formatting in Word.

Ans: Text Formatting:

Formatting text means changing the font type, size, style, color and effects of text.

Changing the Font Type and Size of Text:

Open the **Home** tab and click the arrow on the right side of the currently selected font type as shown in Fig. and choose another font type. To change the font size, click the arrow on the right side of the font size and select a font size from the drop-down list or type a new font size. To change the font type or size of existing text, select the text and then make the changes.

Changing font type and font size

Changing Font Styles and Effects:

The following are the steps for changing font styles and effects.

1. Click the **Home** tab.
2. Click the dialog box launcher on the lower-right corner of the **Font** group. This will open the **Font** dialog box shown in Fig. Now, the user can change font styles and effects of text.

Font dialog box

Some changes that are available in the **Font** dialog box can be made directly from the **Font** group in **Home** tab.

Steps to clear the text formatting:

The following are the steps to clear the text formatting.

Style dialog box

1. Select the text you want to clear the formatting.
2. Click the **Home** tab.
3. Open the **Styles** dialog box and select **Clear all** as shown in Fig.

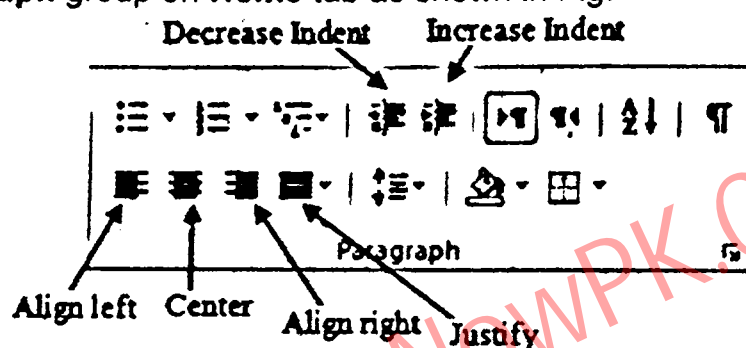
Paragraph Formatting:

Paragraph formatting refers to change of format of text of paragraph such as font size, color, line spacing, alignment etc. Paragraph formatting tools are provided in the **Paragraph** group of **Home** tab and **Page Layout** tab.

- **Changing Paragraph Alignment and Indenting:**

Paragraph alignment refers to the appearance of lines in a paragraph in relation to left or right margins. Left align is the default setting for paragraph alignment.

Paragraph indentation refers to the distance of paragraph from left margin.

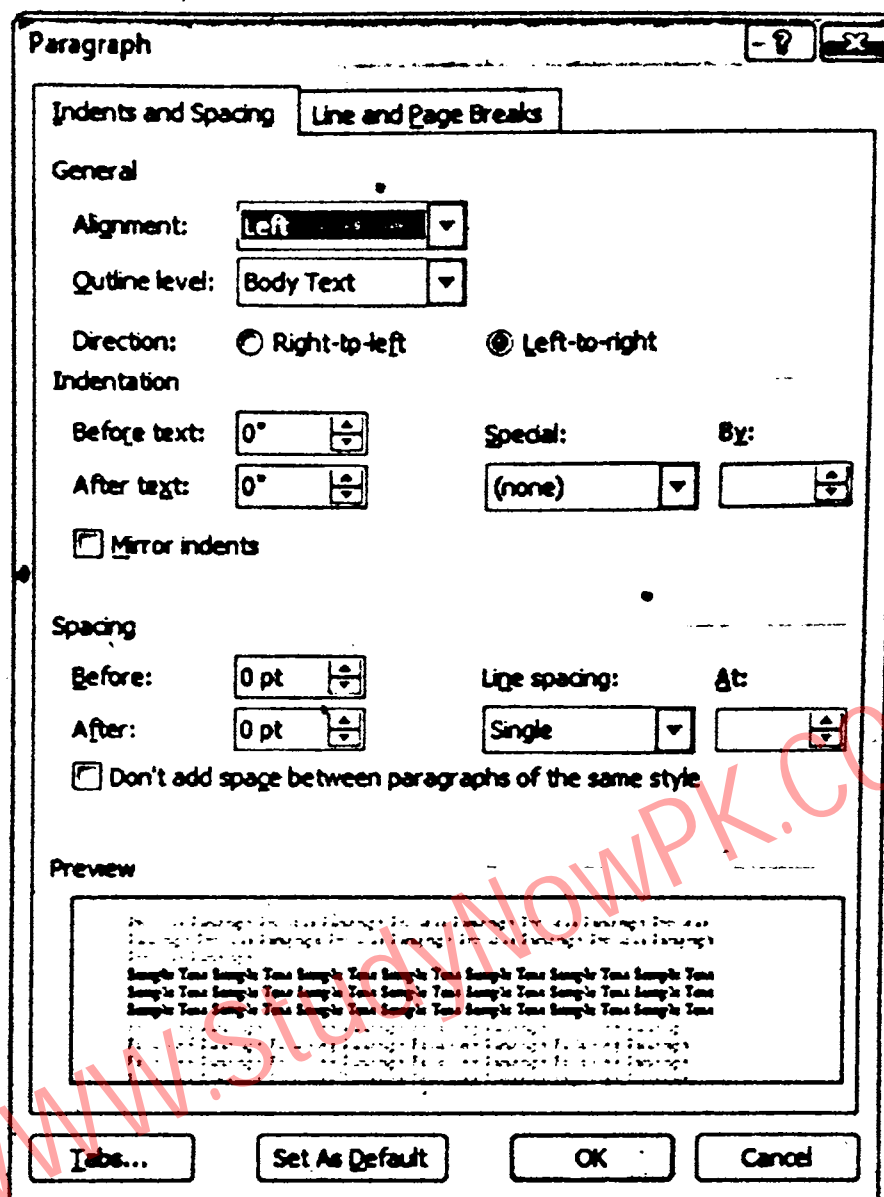
Select the paragraph to change the alignment and then select an alignment from the **Paragraph** group on **Home** tab as shown in Fig.

Paragraph alignment and indenting

Align left: It will align the text to the left margin.
Center: It will center the text within the left and right margins.
Align right: It will align the text to the right margin.
Justify: It will align the text both to the right and left margins.

To increase paragraph indent, click the **Increase Indent** button shown in Fig, in the **Paragraph** group on **Home** tab. To decrease the paragraph indent, click the **Decrease Indent** button. Increasing indentation will move the paragraph to the right side by one tab position. Decreasing indentation will move the paragraph to the left side by one tab position.

- **Changing Spacing between Paragraphs and Lines:**

The following are the steps for changing spacing between paragraphs and lines

1. Select the paragraph or paragraphs.
2. Click **Home** tab
3. Open the **Paragraph** dialog box shown in Fig, by clicking the small arrow at the bottom right corner of the **Paragraph** group.
4. Make the required changes.
5. Click **OK** to apply the changes.

Paragraph dialog box

iv. Describe the Paste Special command used in Excel.

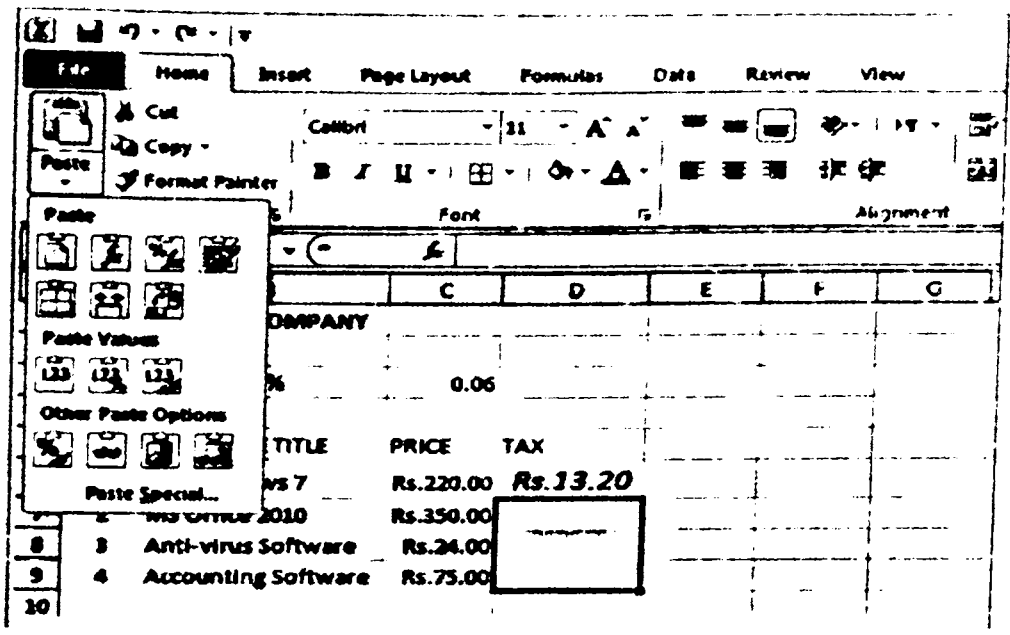
Ans: Paste Special:

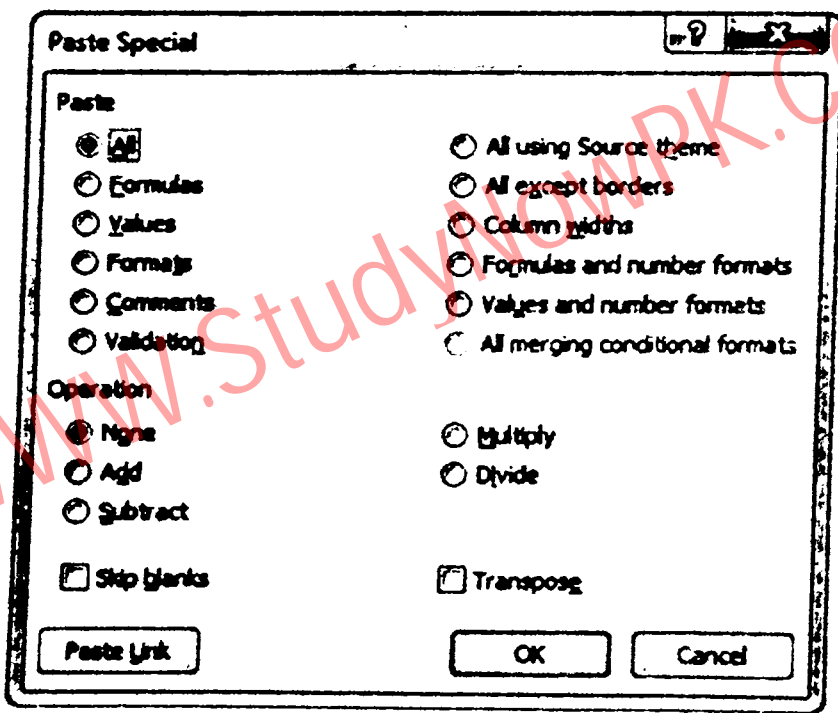
Excel copies all the information in the selected range of cells when you paste data.

Excel's Paste Special command allows many other options while pasting cells such as paste only formats of selected cells without contents or paste contents without formulas

Steps describe the use of Paste Special command:

The following steps describe the use of Paste Special command.

1. Select the cell range to paste.
2. Open the **Paste** drop-down menu in **Clipboard** group of **Home** tab and select **Paste Special** as shown in Fig. **Paste Special** dialog box will open.

Using Paste Special command

3. Select an option from the **Paste Special** dialog box shown in Fig. and click **OK**.

Paste Special dialog box

Commonly used options of Paste Special dialog box:

Commonly used options of Paste Special dialog box are explained below.

All: Used to paste all the information in the selected cell range. This is same as normal paste command.

Formulas: Used to paste text, numbers and formulas without formatting. The formula in cell D6 in the worksheet shown in Fig, is formatted.

D6 =C6*C3

	A	B	C	D	E
1	CITY SOFTWARE COMPANY				
2					
3		Sales Tax 6%	0.06		
4					
5	S.No.	SOFTWARE TITLE	PRICE	TAX	
6	1	MS Windows 7	Rs.220.00	Rs.13.20	
7	2	MS Office 2010	Rs.350.00		
8	3	Anti-virus Software	Rs.24.00		
9	4	Accounting Software	Rs.75.00		
10					

Formula in cell D6 is formatted

When this formula is copied to cells, D7, D8 and D9 using paste special, the format of cell D6 is not copied as shown in Fig.

J18

	A	B	C	D	E
1	CITY SOFTWARE COMPANY				
2					
3		Sales Tax 6%	0.06		
4					
5	S.No.	SOFTWARE TITLE	PRICE	TAX	
6	1	MS Windows 7	Rs.220.00	Rs.13.20	
7	2	MS Office 2010	Rs.350.00	Rs.21.00	
8	3	Anti-virus Software	Rs.24.00	Rs.1.44	
9	4	Accounting Software	Rs.75.00	Rs.4.50	
10					

Formula in cell D6 is copied to cell D7, D8 and D9

Values: Used to convert formulas in the selected cell range to their calculated values and then apply the paste command.

Formats: Used to paste only the formatting of selected cell range without cell contents.

All except borders: Used to paste all the information in the selected range without copying any borders if used.

v. Describe how functions are used in Excel with examples.

Ans: Working with Functions in Excel:

Functions are built-In formulas in Excel that allow user to easily perform common calculations on data. Functions can be entered in a worksheet using keyboard, **Insert Function** command or **AutoSum** drop-down menu.

- **Using Keyboard to Find Average:**

The following are the steps to calculate average sale for Acer laptop computer during the first quarter using the AVERAGE function.

1. Select cell E5 where the result will appear.
2. Type = **av** to display the Formula AutoComplete list as shown in Fig.

Calculating average

3. Point to **AVERAGE** function and Double-click.
4. Select the range B5:D5 to insert it as argument to the **AVERAGE** function.
5. Press **Enter** key.

- **Using Insert Function command to Find the Highest Value:**

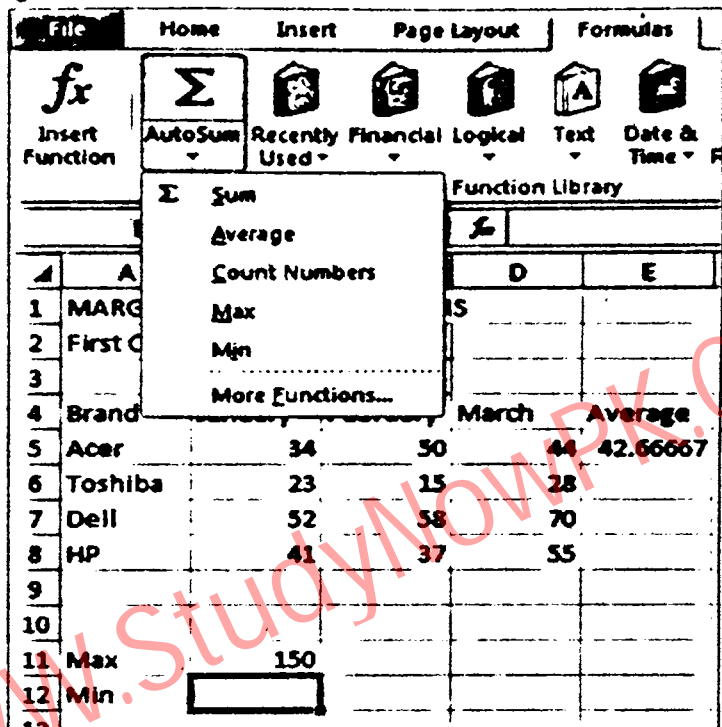
The following are the steps to find the highest value.

1. Select cell B11 where the answer will appear.
2. Click **Insert Function** command shown in Fig. **Insert Function** dialog box will be displayed.

Using Insert Function command to insert a function

3. Select **MAX** in the function list and click **OK**.
4. Type B5:B8 in the **Number 1** text box of **Function Arguments** dialog box and click **OK**.

- **Using AutoSum Drop-down Menu to Find the Lowest Value:**
  The following are the steps to find the lowest value in the range B5:B8 using **AutoSum** drop-down menu.

1. Select cell B12 where the answer will appear.
2. Click **Formulas** tab.
3. Open the **AutoSum** drop-down menu in the **Function Library** group as shown in Fig, and select **Min**.

Using AutoSum command

4. Type the range B5:B8 and press **Enter**.

vi. Describe how formulas are used in Excel with examples.

Ans: Working with Formulas in Excel:

A formula is an expression that performs calculations. It consists of operators, constants and cell addresses. The standard operators used in Excel formulas are given in Table.

Arithmetic operators used in Excel

Arithmetic Operation	Excel Operator
Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponent	^

All the Excel formulas begin with equal sign (=) just like functions. For example, to multiply two numbers 4 and 7, the formula will be =4*7. User can also use cell addresses in formulas such as =(A4+B4)/5. This formula will first add the contents of cell A4 and B4 and then divide the sum by 5.

Examples:

Following are the steps to calculate the total number of laptop computer sale for the months of January, February and March in the worksheet shown in Fig.

1. Click cell B9 where the answer will appear.
2. Type the formula =B5+B6+B7+B8 as shown in Fig, and press Enter.

	A	B	C	D	E
1	MARGALLA COMPUTER SYSTEMS				
2	First Quarter Laptop Sales				
3					
4	Brand	January	February	March	
5	Acer	34	50	44	
6	Toshiba	23	15	28	
7	Dell	52	58	70	
8	HP	41	37	55	
9		=B5+B6+B7+B8			
10					

Using formula to find sum

3. To calculate the total number of laptop computers sold in the months of February and March copy the formula from cell B9 to C9 and D9.
4. Click the cell B9, point to the fill handle and drag it through cell D9.

The user can also calculate the total number of laptop computers sold in January by performing the following steps.

1. Click cell B9.
2. Click **Formulas** tab.
3. Double-click the **AutoSum** command in the **Function Library** group.

Excel Automatically Recalculates Formula Results:

Whenever the user changes the value in a cell, the result of the formula in which that value is used will be automatically updated. This feature known as ***automatic recalculation*** is one of the main advantages that spreadsheets have over calculators.

Lab Activities

Activity 1:

Type the following text and apply the commands given at the end.

Computer Ethics:

Computer ethics is concerned with the moral guidelines for the ethical use of computer technology. It emerged with the invention of

computer. It specifies what is right and what is wrong when using computer technology. The following are some important points of computer ethics.
Computer should not be used to harm other people
Computer should not be used to commit any type of crime
Computer users should not create computer virus

a. Center the title and make it bold
b. Apply font size 16 to the title
c. Justify the paragraph
d. Underline and bold the words "Computer ethics" in the paragraph
e. Apply italics and bold to the words "computer technology"
f. Apply bullets to the last three lines

Activity 2:

Create weekly timetable of your class in Word and give title to it using WordArt.

Activity 1:

Activity 3:

Create the following worksheet in Excel and calculate sum and average using formulas.

Expenses of 1st Quarter						
S.No.	Expense	Jan	Feb	Mar	Total	Average
1.	Salary	87000	102400	113800		
2.	Rent	2500	2500	2500		
3.	Utilities	3250	3500	3080		
4.	Transport	7830	6885	8940		
5.	Miscellaneous	4500	6708	7740		

Activity 4:

Create a column chart for expenses in the months of January, February and March for the above worksheet.

Activity 5:

Create the following worksheet in Excel and enter marks in the subject columns in the range 0 to 75. Restrict data entries in the subject columns to the specified range using data validation command.

S.No.	Student Name	Mathematics	Physics	Computer	Chemistry
1.	Abrar Nabi				
2.	Mumtaz Akbar				
3.	Muhammad Bilal				
4.	Javed Akhtar				
5.	Afzal				
6.	Muslim Khan				

Activity 6:

Write a leave application in Urdu using the Inpage Urdu editor